

Fauna Sumatrensis

(Bijdrage Nr. 62). ¹⁾

Preliminary Revision of the Acrididae (Orthoptera)

by

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(with 101 figures).

INTRODUCTION.

The study of the Acrididae of Sumatra shows, that up till now, our knowledge is very incomplete. Besides the general works and those treating on Orthoptera, there are but a few publications dealing more especially on Acrididae of Sumatra. These publications, scattered through several scientific publications, are mostly based on accidental material brought home from expeditions or collectors. Next to this reason there may be the fact, that there are still great areas unknown or only little explored.

A revision like this paper, is therefore but a preliminary work and by no means an exhaustive monograph, the material being too poor to discuss its faunal richness or even the relation of this fauna with that of the continent and the other isles. The chief purpose of the present paper is to facilitate further students by means of fully descriptions and keys, the study of the known species and to furnish a basis for their future study. In this richly diversified tropical country great numbers of unknown species will undoubtedly continue to be found. This study is based on material collected by E. JACOBSON, E. MJÖBERG, J. B. CORPORAAL and others, on the collections of the Museums of Berlin-Dahlem, Genua, Leiden, London and Stockholm, my own collection and literary sources.

¹⁾ De voorgaande bijdragen tot de Fauna sumatrensis zijn verschenen in de „Entomologische Mitteilungen”, met uitzondering van No. 63 en 64, die in Deel 72, 1929, van het Tijdschrift voor Entomologie zijn opgenomen. Daar indertijd bij de nummering No. 62 is overgeslagen, is aan de nu verschijnende dit nummer toebedeeld.

Mr. E. JACOBSON collected especially in Western-Sumatra in the following localities (the number is indicating the altitude above sea-level): Padang (2 M.), Gunung Pasaman (200 M.), Lubuksikaping (450 M.), Tambang Sawah (450 M.), Anai-kloof (500 M.), Harau-Kloof (550 M.), Fort de Kock (920 M.), Baso (800 M.), Tandjunggadang (900, 1000, 1200 M.), Sungai Kumbang (1400 M.), Gunung Singgalang (1600, 1800 M.) and Padang-Taarap (1700 M.).

Mr. E. MJÖBERG collected in Eastern-Sumatra in the following localities: Medan, Brastagi, Kotatjane, Sibolangit, Bandar Baroe, Arnhemia, Piso, Perdagangan, Simpang Toba and also in Singgalang and Sinabong (2000 M.).

As to the species, I only took in consideration those that are known to occur in Sumatra and not those of the surrounding isles. In an appended list I shall give an account of all the known species and those occurring in those isles. As to the subfamily *Tetriginae*, a thorough revision appears necessary for most genera and species, being the reason that I restricted myself in only copying the original descriptions without further remarks. The genera and species of the other subfamilies are for the most part redescribed in detail. The references in the synonymy are given as briefly as possible and only correct synonyms are recorded.

Five new genera and fourteen new species are described here for the first time. Altogether 61 genera and 102 species are treated. At present no others are known in Sumatra. I had the opportunity to study (besides the new species) the types or cotypes of: *Tauchira Buae* BOL., *Tauchira polychroa* STÅL, *Eucoptacra cingulatipes* BOL., *Eritrichius modiglianii* BOL., *Trilophidia cristella* STÅL, *Phlaeoba rustica* STÅL, *Phlaeoba antennata* BR.V.W., *Mitricephala vittata* BOL., *Gesonia sanguinolenta* BR. V. W. and *Gesonia recticercus* SJÖST.

I wish to express my thanks first of all to Mr. E. JACOBSON whose large collections I could study and on whose initiative this paper could be published. I also wish to thank Prof. IJ. SJÖSTEDT in Stockholm who enabled me to study the collection of Mr. E. MJÖBERG and last not least the authorities of the respective museums for the ready support given to my work, especially for the loan of types and cotypes.

FAM. ACRIDIDAE.**Key to the subfamilies.**

1. Pronotum produced backwards over the abdomen.
Claws of the tarsi without arolium; tarsi of anterior and median legs 2-jointed.

. . . . Sub-fam. **Tetriginae.**

1.1. Pronotum not produced backwards over the abdomen or when it is the case not extending beyond the middle of abdomen. Claws of the tarsi with arolium; tarsi of anterior and median legs always 3-jointed.

2. Antennae very short, shorter than the anterior femora.

. . . . Sub-fam. **Eumastacinae.**

2 2. Antennae much longer than the anterior femora.

3. Prosternum unarmed, without spine or tubercle between the anterior legs.

4. Face more or less oblique, usually meeting the vertex at an acute angle. . . .

. . . . Sub-fam. **Acridinae.**

4.4. Face nearly or quite vertical, forming a rounded arch with the vertex. . . .

. . . . Sub-fam. **Oedipodinae.**

3.3. Prosternum armed between the anterior legs with a distinct conical or cylindrical spine, or with the anterior margin raised and laminated.

4. Foveolae of the vertex contiguous, visible from above and forming the apex of the fastigium of vertex.

. . . . Sub-fam. **Pyrgomorphinae.**

4.4. Foveolae of vertex varying in position, but never forming the apex of the fastigium of vertex, often obsolete.

. . . . Sub-fam. **Catantopinae.**

SUB-FAM. I. TETRIGINAE. ¹⁾**Key to the genera.**

1. Antennae filiform.

¹⁾ Mr. E. JACOBSON made some observations as to the biology of these „grouse locusts”. He writes: „I wish to draw your attention to the fact that these grasshoppers probably are feeding upon algae, lichens and mosses. They are found on old, overgrown trees, on moistened walls and stones covered with algae, in small brooks and some forms are

2. Anterior femora above distinctly sulcate; pronotum anteriorly more or less produced above the head.

Sect. *Batrachideae* **Saussurella** BOL.

2.2. Anterior femora compressed, carinate above.

3. Antennae having 2—3 articles near the apices strongly compresso-dilated or foliaceous; consisting of 11—14 articles.

Sect. *Discotettigiae*.

4. Pronotum with the posterior angles of lateral lobes produced outwards **Discottetix** COSTA.

4.4. Pronotum with the posterior angles of lateral lobes turned down **Phaestus** BOL.

3.3. Antennae lengthily filiform, consisting of about 22 articles.

4. Frontal costa forked between the ocelli, the rami strongly divergent forming a frontal scutellum.

Sect. *Cladonotae*. **Potua** BOL.

4.4. Frontal costa furcillate, but the rami diverge only a little or moderately forward, or parallel, very frequently separated only in a slight degree by a sulcus.

5. Pronotum truncate anteriorly, rarely angulate-produced; posterior angles of the lateral lobes turned down; more or less rounded, not at all obliquely truncate; third article of the posterior tarsi shorter than the first.

Sect. *Tettigiae*.

6. Pronotum short, the posterior prolongation broadly cuneiform, its margins nearly rectilinear

. **Coptotettix** BOL.

6.6. Pronotum very long and rather narrow, the posterior prolongation very narrowly cuneiform, the apical half subparallelsided.

7. Vertex and eyes obviously raised above the level of pronotum **Euparatettix** HANC.

known to be aquatic and to graze the algae from the stones; furthermore they are found in the entrance of caves where the walls are covered with algae and mosses.

Some peculiar forms, recognizable at the form of the antennae (*Phaestus* sp. AUTHOR), are exclusively living on the stems of bamboo where they are feeding upon the lichens growing there upon. Many forms are also found on grass lands, probably feeding upon the mosses living there."

7.7. Vertex and eyes not or only very little raised above the level of pronotum.

8. Vertex narrower than width of eye

. . . . **Paratettix** BOL.

8.8. Vertex as wide as or wider than eye

. . . . **Hedotettix** BOL.

5.5. Pronotum truncate anteriorly, posterior angles of the lateral lobes more or less laminately produced outwards, acute, or posteriorly obliquely truncate, rarely turned down.

6. Posterior angles of lateral lobes of pronotum acute produced outwards; the first articles of the posterior tarsi distinctly longer than the third, posterior tibiae strongly ampliate toward the apices, very frequently not or sparingly spinose.

Sect. *Scelimenae*.

7. Lateral spine of pronotum straight or curved forwards

. . . . **Criotettix** BOL.

7.7. Lateral spine of pronotum distinctly directed backwards

. . . . **Rhopalotettix** HANC.

6.6. Posterior angles of the lateral lobes of pronotum little produced outwards, obliquely truncate behind, very rarely acute-spinose; first and third articles of the posterior tarsi nearly equal in length.

Sect. *Metrodora*.

7. Vertex lengthily produced in advance of the head.

8. Antennae very long, third article of the posterior tarsi clavate **Acanthalobus** HANC.

8.8. Antennae shorter, third article of the posterior tarsi slender, normal **Mitrariella** WILL.

7.7. Vertex truncate, not produced in advance of the head.

8. Head more or less compresso-elevated; vertex narrower, than half the breadth of one of the eyes; anteriorly very often subacute. Posterior angles of lateral lobes of pronotum little produced outwards **Systolederus** BOL.

8.8. Head compresso-elevated, but having the vertex about half the breadth of one of the eyes or head not or little compresso-elevated, the vertex then somewhat wider than one of the eyes.

9. Body stout, posterior angle of lateral lobes of pronotum truncated **Mazarredia** BOL.

9.9. Body slender, posterior angle of lateral lobes of pronotum rounded **Xistra** BOL.

1.1. Antennae much flattened and triquetral, except the basal and apical joints.

Sect. *Tripetalocerini* **Tripetalocera** WESTW.

Sect. *Batrachideae*.

Saussurella.

1887. *Saussurella* BOLIVAR, Ann. Soc. Ent. Belg. XXXI pp. 189, 196, 303.

„Corpore granoso. Vertice lato, convexo sed mutico, utrinque prope oculos breviter carinato, facie parum obliqua, costa frontali depressa, inter antennis leviter elevata et inter oculos subito depressa, latissime sulcata, carinis subparallelis; antennis inter oculos insertis; oculis parum productis, palpis modice compressis.

Pronoto antice supra caput producto; lobis deflexis postice bisinuatis, sinu inferiore arcuato. Elytris oblongis, alis perfecte explicatis. Femoribus pluricarinatis, fem. anterioribus superne sulcatis; fem. intermediis apice mucronatis, femoribus posticis gracilibus, carinato-serrulatis, spina femorali parva, spina geniculari modice producta; tibiis posticis subparallelis, pariter spinosis; articulis primo tertioque tarsorum posteriorum subaeque longis”.

Genotype: *Acridium* (*Tetrix*) *cornutum* DE HAAN.

Only represented by one species.

Saussurella sumatrensis BOL.

1898. *Saussurella Sumatrensis* BOLIVAR, Ann. d. Mus. Civ. d. Stor. Natur. Ser. 2. vol. XIX (XXXIX) p. 80.

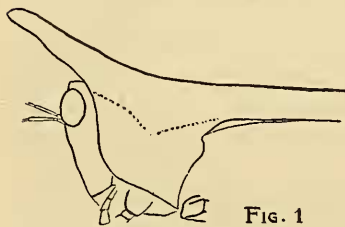


Fig. 1. *Saussurella sumatrensis* BOL.
♀ cotype.

Statura majore (c. *S. javanica* BOL.). Pronoto antice in processum magnum compressum valde ascendente, longe ante capitem producto, apice supra rotundato sed haud recurvo, subtus mar-

ginibus rectis; lobis latera libus extrorsum fortiter acuteque productis. Elytra apice rotundato-truncata.

Colore fusco, capite antice minute albido granoso, pronoto lateribus nec non femoribus posticis fasciis duobus basalibus carneis, palpis apice pallidis; antennis rufis, nigro-terminatis.

Abdomen subtus pallidum longitudinaliter nigro-trivittatum.

Tibiis posticis supra pallidis, canthis minutissime serrulatis, atque parce dentatis, tarsis posticis pallidis.

Long. corp. ♀ 17 mm.; pron. cum process. 21 mm.; proc. ant. 4 mm.; fem. post. 9 mm. Type Museum Genova. Fig. 1.

This species is known from Sumatra, Java and Perak (?).

Sumatra: Pangherang-Pisang, Serdang, Sibolangit, Muara Kiawai, Medan.

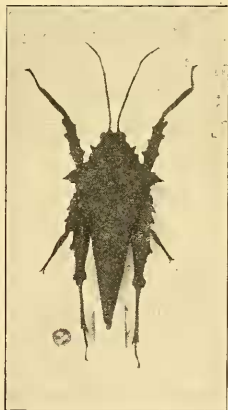
Sect. *Discotettigiae*.

Discotettix.

1864 *Discotettix* COSTA, Ann. Mus. Zool. Nap. II, p. 59.

1877 *Mnesarchus* STÅL, Oefv. Vet. Akad. Förh. XXXIV (10) p. 55.

Capite haud exserto; vertice transverso, oculo non duplo latiore, antice imperfecte marginato; oculis a supero visis reniformibus, sessilibus; facie vix obliqua, costa frontalis inter antennas compressa et arcuatim elevata, pone antennas depressa, oblitterata; antennis distincte anteoculos insertis, filiformibus, longiusculis, articulis 12 compositus, articulis 7 — 9 valde compressis, dilatatis, foliaceis, 3 — 5 cylindricus, confusis, apicalibus angustissimus; palpis brevibus, haud ampliatis. Pronoto dorso deplanato, antice saepe in tuberculum producto, postice acuminato, carinis plus minusve tuberculatis; angulo postico lorum lateralium extrorsum explanato, spinoso vel obtuso. Elytris Fig. 2. *Discotettix selysi* BOL. alisque perfecte explicatis vel abbreviatis vel nullis. Prosterno antice reflexo, medio haud carinato. Pedibus compressis,



femoribus supra carinatis, plus minusve lobato dentatis, tibiis tetragonis, duabis primis apicem versus extrorsum mutantibus; tib. posticis subinermibus, dimidio apicali tantum spinis tribus vel quatuor; canthis serratis; articulis primo tertioque tarsorum posticorum subaeque longis; pulvillis rotundatis, haud acute spinosis; pulvillo tertio duobus basalibus unitis longitudine aequali. Valvulis ovipositoris prope apicem sinuatis.

Genotype: *Tetrix Belzebuth* SERV.

Only represented by one species.

Discotettix Selysi BOL.

1887. *Discotettix Selysi* BOLIVAR, Ann. Soc. Ent. Belg. XXXI, pp. 306, 307.

Ferrugineus vel fuscus. Antennis hispidis, fuscis rufo-variegatis. Pronoto supra grosse impresso-punctato, haud reticulato, processu postico acuto pone apicem femorum parum producto; carina media subtili, tuberculis obtusis, compressis, vix elevatis praedita, tuberculo primo cylindrico, granoso, supra caput oblique producto, apice rotundato, angulis humeralibus obtusis, dorso pone medium tuberculis sex obtusis, duobus primis majoribus atque quadricarinatis; angulo postico lorum lateralium extrorsum valde expanso, acuto vel obtuso, margine postico denticulato. Elytris oblongis, alis ad apicem processus extensis. Pedibus elongatis, femoribus fortiter lobatis; tibiis intermediis extus unidentatis; tarsis pallidis, fuscoannulatis.

Long. corporis ♂ 12 mm, pronoti 14 mm, fem. post. 7.5 mm. Fig. 2.

Sumatra: Sumatra, Batang Singalang.

Phaestus.

1887. *Phaestus* BOLIVAR, Ann. Soc. Ent. Belg. XXXI, pp. 190, 196, 309.

Capite haud exserto; vertice oculo haud latiore, antice imperfecte marginato, marginibus granulatis, oculis intus sinuatis, sessilibus, parum prominentibus: facie parum obliqua, costa frontali inter antennis breviter atque subangulato producta, late sulcata, pone antennis abrupte depressa, antennis ante oculos insertis, filiformibus, elongatis, articulis tribus anteapicalibus compresso-dilatatis, ovalibus, foliaceis.

Pronoto obtuse tectiformi, antice subrotundato producto, postice acuminato, angulis humeralibus nullis, angulo postico loborum lateralium deorsum verso, subrotundato-truncato. Elytris oblongis, parvis; alis perfecte explicatis, caudatis. Femoribus anterioribus compressis, superne carinatis; tibiis angustis, linearibus; femoribus postice latis, simplicibus, tibiis posticis plurispinosis, articulis primo tertioque tarsorum posticorum subaeque longis. Valvulis ovipositoris apice sinuatis.

Genotype: *Tettix Mellerborgi* STÅL.

Only represented by one species.

Phaestus Sumatrensis WILL.

1928. *Phaestus Sumatrensis* WILLEMSE, Journ. Malayan Branch Royal Asiat. Soc., vol. VI, p. 3.

General coloration dull blackish-brown or greyish-brown, sometimes pale variegated. Antennal joints blackish-brown, greyish-brown or dirty-yellowish, apical joint yellowish-white. Hind femora brown or greyish-brown, the area infero-externa



FIG. 4

Fig. 3. *Phaestus sumatrensis* WILL. *Phaestus sumatrensis* WILL.
♀ cotype. ♀ cotype. Antenna.

dark brown or black. Pronotum posteriorly extended a little beyond the knees of the hind femora, especially in the ♂. Wings somewhat longer than the pronotum.

Superior carinae of femora finely granulate or serrulate.
Fig. 3, 4.

	♂	♀
Length of body	8--9 m.m.	8.5--10 m.m.
» » antennae	6 »	5 »
» » pronotum	8--12 »	9 »
» » hind femora	4.5--5 »	5 »

Only known from Sumatra.

Sumatra: Bah Lias, Lou Rakit, Fort de Kock, Buo, Padang lowlands, Muara Kiawai.

Sect. *Cladonotae*.

Potua.

1887. *Potua* BOLIVAR, Ann. Soc. Ent. Belg. XXXI, pp. 183, 192, 208.

Corpore rugoso-setoso, tuberculis spiniformibus destituto. Facie parum obliqua, antennis ab oculis minus quam inter se distantibus; scutello frontali concavo, carinis lateralibus valde incrassatis, pone antennas subito depressis; vertice oculo fere duplo latiore, tricuspidato, dente medio magis producto. Pronoto rugoso, carina media bicristulata, antice truncato, caput liberante, postice abdomine haud longiore, acuto. Elytris alisque nullis. Femoribus parce tuberculatis, carinis undulato-dentatis, lobis femorali atque geniculari acutis; tibiis anticis filiformibus; posticis simplicibus validiusculis tantum prope apicem ampliatis parce et breviter spinosis; canthis haud serratis; articulis primo tertioque tarsorum posticorum aequae longis; pulvillis duobus basalibus nullis.

Genotype: *Potua coronata* BOL.

Only represented by one species.

Potua coronata BOL.

1887. *Potua coronata* BOLIVAR, Ann. Soc. Ent. Belg. XXXI p. 208.

„Fusca, valde setosa. Vertice dente medio lateralibusque

compresso laminatis; costa frontali inter antennas nulla. Pronoto ruguloso, setoso, carina media bi-undulata inter humeros depressa fere oblitterata, denique levissime elevata, utrinque carina compressiuscula pluri interrupta; processu postico retrorsum declivi, cristulis transversis vel oblique positis, duabus posticis elevatis convergentibus extus antrorsum continuatis, dein processu subito et valde oblique declivi et acuminato, angulo postico loborum lateralium lobo lato, rotundato-truncato, extrorsum ampliato.



Pedibus valde setosis, fusco annulatis: femoribus anterioribus superne bi- inferne unidentatis; Fig. 5. *Potua coronata* BOL.
var. *Sumatrensis* BOL.
♀ cotype.

femoribus posticis crassis, breviusculis, strigis pagine externe gibbulosis: tibiis posticis prope basim breviter flexuosis: articulo tertio tarsorum posticorum fusco, medio annulo pallido"

„var. *Sumatrensis* BOL. 1898 Ann. Mus. Civ. Stor. Nat. Genova XXXIV p. 66.

Vertex dente medio compresso-laminato valde producto supra distincte sinuato. Pronoti carina media antice in dentem producta, ante humeros valde compresso-elevata".

Long corpor. ♂ ♀ 8—10 mm, pronoti 7.5—9 mm, fem. post. 5—6 mm. Fig. 5.

This species is known from Borneo, Malacca and Sumatra.

Sumatra: Si-Rambé.

Sect. *Tettigiae*.

Coptotettix.

1887. *Coptotettix* BOLIVAR. Ann. Soc. Ent. Belg. XXXI pp. 188, 195, 287.

Corpore rugoso vel tantum granuloso. Capite haud exserto: vertice antrorsum angustato, deplanato, antice cari-

nulis intus interruptis vel abrupte retrorsum ductis: costa frontali rotundata, plus minusve producta, antennis inter oculos insertis, filiformibus, elongatis. Pronoto antice truncato, ad apicem femorum posticorum extenso vel longe acutissimeque subulato; carina media depressa; dorso rarissime tectiformi. Elytris oblongis; alis abbreviatis vel caudatis. Femoribus anterioribus saepe elongatis, carinis parallelis; femoribus posticis elongatis, carinis integris vel tantum crenulatis: articulo primo tarsorum posticorum tertio longiore.

Genotype: *Coptotettix asperatus* BOL.

Coptotettix fuliginosus BOL.

1887. *Coptotettix fuliginosus* BOLIVAR. Ann. Soc. Ent. Belg. XXXI, pp. 288, 292.

Fuliginosus. Capite haud exserto; vertice oculo subaequalato, antrorsum valde angustato, ruguloso, utrinque fossulato,



Fig. 6. *Coptotettix fuliginosus* BOL. var. *sumatrensis* BOL.
♀ cotype.

ante oculos vix prominulo; costa frontali arcuato-producta, ante ocellum medium haud sinuata; antennis inter oculos insertis. Pronoto longe subulato, dorso deplanato, rugis obtusis consperso, carina media pluri interrupta, prope marginem anticum depressa, oblitterata; angulo postico loborum lateralium anguste acuminato, apice hebetato. Elytris oblongis, apice rotundatis, impresso-punctatis; alis caudatis. Femoribus elongatis: articulo primo tarsorum post. pulvillo tertio parum longiore.

Long. corporis ♀ 11 mm, pronoti 14 mm, fem. post. 7 mm.

var. *abbreviatus* BOL. Ann. Mus. Civ. d. Stor. Nat. Genova XXXIX p. 78.

Pronoto postice apicem femorum vix superante, dorso granuloso. Alae pronoto subbreviares. Statura minore.

Long. corp. ♂ ♀ 8—10 mill.; pron. 9 mill.; fem. post. 6.5 mill. Fig. 6.

Only known from Sumatra.

Sumatra: Siboga, Pangherang-Pisang.

***Coptotettix Modiglianii* BOL.**

1898. *Coptotettix Modiglianii* BOLIVAR. Ann. Mus. Civ. d. Stor. Nat. Genova XXXIX p. 78.

Cinereus vel fuscus. Vertex oculo haud vel vix latior. Frons angusta, costa ramis subparallelis parum distantibus. Palpi pallidi. Antennae inter oculos insertae. Ocelli pone medium oculorum siti. Pronotum plus minusve granulosum, antice obtuse tectiforme, carina media ante angulos humeralis a latere visa praecipue in ♀ distincte subangulato-rotundata, inter humeros sinuata. Angulis humeralibus obtusis, intus carinula subrecta retrorsum ad apicem processus producta. Processu apicem abdominis haud attingente, deplanato, carina media undulata; angulus posticus lorum lateralium anguste et oblique truncatus. Elytra parva, apicem versus distincte angustata, subacuminato-rotundata. Alae abbreviatae. Femora antica et intermedia angusta, carinis crenulatis. Femora postica longiuscula, crenulata. Tarsi postici pulvillo tertio secundo distincte longiore.

Long. corp. ♂ ♀ 8—12 mm.; pron. 5.5—7 mm.; fem. post. 6—6.5 mm.

Only known from Sumatra.

Sumatra: Pangherang-Pisang, Pea Ragia, Siboga, Balighe.

***Euparatettix*.**

1904. *Euparatettix* HANCOCK. Spol. Zeyl. II, pp. 108, 111, 145.

Related to *Paratettix* BOLIVAR, but having the head somewhat compresso-elevated exserted; eyes strongly globose; the vertex narrower than eye and elevated forward; the frontal costa more or less convex or arcuate produced, declivous toward the base; the dorsum of pronotum subflattened, the antero-dorsal margin not advanced to the eyes; with moderately long antennae, the last five articles often little compresso-ampliate, inserted barely below or on

a level with the inferior border of the eyes; the anterior femora slender, entire or nearly so.

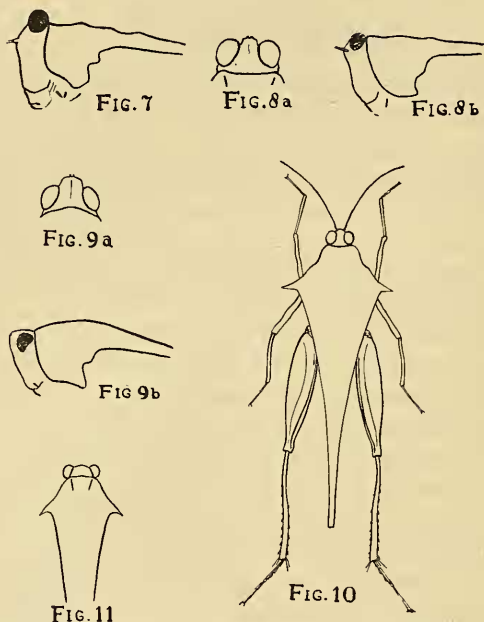


Fig. 7. *Euparatettix scabripes* BOL. ♂ cotype. —
 Fig. 8. *Paratettix* sp. — Fig. 9. *Hedotettix gracilis*
 DE HAAN. — Fig. 10. *Criotettix oculatus* BOL. cotype.
 — Fig. 11. *Acanthalobus saginatus* BOL.

Genotype: *Euparatettix personatus* BOL.

Only represented by one species.

***Euparatettix scabripes* BOL.**

1898. *Paratettix scabripes* BOLIVAR. Ann. Mus. Civ. d. Stor.
 Nat. Genova, XXXIX, p. 76.

Rufescens vel griseus, albido fuscoque variegatus; minute granulosus. Caput leviter exsertum. Vertex oculo subangustior, postice plicis transversis ab occipite distinctus, antrorsum leviter angustatus, ascendens, medio carina subtili, postice abbreviata, utrinque carinula elevata ab antico visa oculo humiliore. Costa frontalis parum producta, pone antennis

leviter sinuata. Oculi parum prominuli. Pronotum postice subulatum, dorso suaviter granuloso ante et inter humeros convexiusculo, carina media sub-compressa, undulata; processu basi subfossulato, saepe fusco-biplagiato; carinis lateralibus granosis a supero vivis distincte expanso-undatis, angulo postico loborum lateralium laeviter extrorsum verso, rotundato-truncato. Elytra oblonga, impresso-punctata.

Alae apicem pronoti superantes extus fusco-variegatae. Femora antica supra subsinuato undata. Femora intermedia carinis compresso-dilatatis, flexuosis, subtus ciliata. Femora postica breviora, supra carina crenulata, apicem versus lobata; pagina externa rugis compressiusculis, productis. Tibiae posticae fuscae albidocinctae. Articulus primus tarsorum posticorum articulo tertio longior, pulvillis acutis, pulvillo tertio duobus basalibus unitis brevior.

Long. corp. ♂ ♀ 6.5—8 mill.; pron. 10—12 mill.; fem. post. 5.5—5 mill. Fig. 7.

This species is known from Java and Sumatra.

Sumatra: Pangherang-Pisang.

Paratettix.

1887. *Paratettix* BOLIVAR, Ann. Soc. Ent. Belg. XXXI pp. 187, 195, 270.

Corpore granoso, parum rugoso. Vertice horizontali, oculo angustiore vel aequo lato, medio carinato, utrinque plus minusve concavo vel longitrorsum canaliculato, antice carinulis flexuosis terminato, a latere viso inter oculos haud producto; costa frontali inter antennis curvato basim versus declivi, raro subsinuata: antennis filiformibus, capite parum longioribus, articulis 14 compositis vix ante oculos insertis; palpis non dilatatis, corpore concoloribus.

Pronoto dorso planiusculo, antice truncato, postice subulato, plerumque apicem femorum superante, carina media parum elevata: angulis humeralibus obtusis: lobis lateralibus postice bisinuatis, sinu inferiori recto vel acuto, angulo postico laterali deorsum verso, apice subrotundato. Elytris ovatis, punctatis; alis perfecte explicatis, rarissime abbreviatis. Femoribus anterioribus compressis, supra carinatis, saepissime

undulatis: tibiis posticis tertia parte apicali distincte ampliatis, pariter spinosis: articulo primo tarsorum posticorum elongato, tertio longiore, pulvillis acuminatis, subtus rectis; pulvillo tertio pulvillis duobus primis unitis plerumque longiore. Fig. 8.

Genotype: *Paratettix meridionalis* RAMB.

Paratettix variabilis BOL.

1887. *Paratettix variabilis* BOL. Ann. Soc. Ent. Belg. XXXI pp. 188, 271, 276.

Fuscus vel ferrugineus, levissime rugosus. Vertice oculo angustiore, antice utrinque carinato, costa frontali ante oculos producta, arcuato-rotundata. Pronoto postice longe subulato, vel per var. apicem femorum vix superante, dorso sublevi, carina media antice compresso-acutiuscula, inter humeros disco linea elevata antice posticeque abbreviata; angulo postico loborum lateralium acute triangulari.

Elytris apice rotundatis. Femoribus anterioribus carinis rectis; fem. intermediis linearibus, elongatis; tarsorum posticorum pulvillis duobus basalibus apice acute spinosis; pulvillo tertio secundo parum longiore. Long. corporis ♂ ♀ 7—10 mm., pronoti 9—11 mm., fem. post. 5.5—6.5 mm.

This species occurs in Madure, Borneo, Philippines and Sumatra.

Sumatra: Sumatra.

Paratettix histrica STÅL.

1860. *Tetrix hystrica* STÅL. Eugenies Resa, Orth, p. 347, no. 113.

Nigro-fusca, pedibus griseo-variis, vertice angusto, oculis angustiore; prothorace postice acuminato; alis prothoracem superantibus; pedibus simplicibus ♂, Long 10, cum alis 12. Lat. 3 millim.

T. subulatae similis, vertice multo angustiore. Nigro-fusca, alutacea. Caput vertice angusto, latitudine antica fere duplo longiore, retrorsum ampliato, medio longitrorsum carinato; fronte supra ocellum carina distincta usque a basi furcata, infra ocellum carina subtili, simplici, apice dichotoma instructa. Oculi globosi, valde prominuli, vertice paullo altiores, ante

hunc haud prominentes. Antennae filiformes, capite transverso fere ter longiores. Prothorax retrorsum acuminatus, femora postica sat longe superans, dorso leviter carinato-marginatus, carina media distincta percurrente instructus; lobis lateralibus angulo externo deflexo, obtuso. Alae prothoracem superantes. Pedes simplices, anteriores griseo-annulati.

This species occurs in New-Caledonie, North of Australie, Philippines, Borneo, Java and Sumatra.

Sumatra: Sumatra.

Hedotettix.

1887. *Hedotettix* BOLIVAR. Ann. Soc. Ent. Belg. XXXI, pp. 188, 195, 283.

Corpore sublaevi, tantum minute granoso vel punctato-impresso. Capite parum exserto; vertice subhorizontali, sculo haud latiore, medio carinato, antrosum plerumque distincte ampliato, antice transverse carinato: costa frontali inter antennas arcuatim producta, inter oculos haud sinuata: antennis filiformibus angulos humerales subattingentibus, inter oculos insertis. Pronoto antice truncato et obtuse angulato, postice acute subulato, carina media compressiuscula, percurrente; angulo postico loborum lateralium angustissime rotundato-truncato vel subacuto.

Elytris apice rotundatis raro subacuminatis. Alis processus longitudinis vel caudatis raro abbreviatis. Pedibus compressis, carinis femoribus anterioribus integris vel obscure undulatis: femoribus posticis carinis granulatis; tibis pariter spinosis; articulo primo tarsorum posticorum elongato, articulo tertio primo brevior.

Genotype: *Hedotettix gracilis* DE HAAN.

Hedotettix gracilis DE HAAN.

1843. *Acridium (Tettix) gracile* DE HAAN. Temminck, Verhandel. Orth pp. 167, 169 no. 16.

„A. diodonti affine, differt oculis minoribus minus globosis; pronoto alis linea brevior, angulis lateralibus obtusis: carina media usque ad apicem producta; colore vel fusco,

vel fusco lateribus supra pedes obscuro, vel cinereo lateribus, supra pedes fuscis maculaque supra insertionem posticorum nigra vel pallido-ferrugineo, angulis supra pedes linea flava notatis." Fig. 9.

	♂	♀
Length of body	8—9 mm.	10—12 mm.
„ „ pronotum	11 „	12—13 „
„ „ wing	11 „	12—13 „
„ „ hind femora	5—6 „	5.5—6 „

This species occurs in Madras, Burma, Bombay, N. India, Celebes, Java and Sumatra.

Sumatra: Padang, Fort de Kock, Sinabang.

Hedotettix coactus BOL.

1887. *Hedotettix coactus* BOLIVAR. Ann. Soc. Ent. Belg. XXXI pp. 188, 284, 285.

Fusco-rufescens. Vertice antrorsum angustato, oculo angustiore, antice prominulo: costa frontali anteoculos magis arcuato-rotundata, integra. Pronoto angusto, antice truncato, postice longe subulato, dorso deplanato, tuberculis minutis sparsis; carina media depressa, levissime elevata, angulo postico loborum pronoti apice rotundato.

Elytris exiguis non duplo longioribus quam latioribus, apice late rotundatis; alis ultra apicem pronoti extensis. Carinis femorum anteriorum subparallelis, fere rectis: articulo primo tarsorum posticorum tertio non multo longiore, pulvillis inferne rectis, pulvillo tertio secundo non multo longiore.

Long corporis ♂, 7 mm., pronoti, 10 mm., fem. post., 4.5 mm.

This species is only known from Sumatra.

Sumatra: Sumatra.

Sect. *Scelimenae*.

Criotettix.

1887. *Criotettix* BOLIVAR. Ann. Soc. Ent. Belg. XXXI, pp. 184, 193, 222.

Corpore granoso, elongato. Vertice ab antico viso oculis raro humiliore, supra horizontali vel antrorsum elevato;

costa frontali pone antennas non sinuata, palpis subcylindricis, concoloribus; antennis vix ante oculos insertis. Pronoto antice truncato, postice longe subulato, rarissime abbreviato, dorso depresso, angulis humeralibus obtusis, angulo postico loborum lateralium extrorsum laminato, acute sed spina valida cylindrica destituto.

Elytris oblongis; alis perfecte explicatis. Prosterno reflexo antice late sinuato. Femoribus anterioribus angustis, carinis integris, dentibus femorali atque geniculari femorum posticorum parvis; tibiis posticis apicem versus modice ampliatis, canthis compressis, spinosis; articulo primo tarsorum posticorum superne deplanato, tertio distincte longiore sed angusto, lineari.

Genotype: *Criotettix tricarinatus* BOL.

***Criotettix oculatus* BOL.**

1898. *Criotettix oculatus* BOLIVAR, Ann. Mus. Civ. Stor. Nat. Genova XXXIX, p. 71.

Corpore fusco-testaceo. Vertex oculo angustior, tricarinatus, carinis lateralibus antrorsum subconvergentibus, carina media postice abbreviata. Oculi exserti. Costa frontalis inter antennas leviter arcuata, infra ocellum subsinuata, verticem versus declivis. Pronotum antice truncatum, postice longe subulatum, dorso inter humeros convexiusculo, breviter bicarinato, pone humeros bifossulato, processu plus minusve oblique rugoso; carina media haud elevata, prope marginem anticum oblitterata; carinis lateralibus parum expressis. Angulo postico loborum lateralium acute spinoso. Elytra parva, apice late rotundata, grosse impresso-punctata.

Pedes fusco annulati, antici elongati, femora carinis granulatis, subundulatis. Femora postica griseo oblique fasciata, supra subtusque minute serrata. Articulo primo tarsorum posticorum pulvillis tribus subaeque longis apice haud acute spinosis. Fig. 10.

Long. corp. ♂ ♀ 9—11 mill.; pron. 11—14 mill.; elytr. 1,8 mill.; fem. interm. 2—2.5 mill.; fem. post. 5—6.5 mill.

This species is known from Java and Sumatra.

Sumatra: Si-Rambé.

***Criotettix nexuosus* BOL.**

1887. *Criotettix nexuosus* BOLIVAR. Ann. Soc. Ent. Belg. XXXI, pp. 185, 223, 224.

Omnino fuscus. Vertice oculo latiore, lobis lateralibus antice marginatis; antennis pallide annulatis.

Pronoto dorso subdeplanato valde rugoso-noduloso, carina media undulata: processu postico longe producto; spina loborum lateralium triangulari, valida, acuta supra carinata. Elytris oblongis, punctato impressis. Carinis femorum anticorum subundulatis, car. inferioribus unidentatis, carina superiori femor. post. irregulariter serrata et sublobata; pulvillis tarsorum post. apice muticis.

Valvis superioribus oviscapti apice non sinuatis.

Long corporis ♀ 14 mm, pronoti 20.5 mm, femor. post. 10 mm.

This species is known from Celebes, Borneo and Sumatra. Sumatra: Balighe, Si-Rambé, Padang.

***Acanthalobus*.**

1904. *Acanthalobus* HANCOCK, Spolia Zeyl. II pp. 108, 131.

Related to *Criotettix* BOLIVAR. Body more or less tuberculose, granulate or nodulose, or rugulose. Head not exserted or elevated; crown short. Eyes moderately prominent. Vertex wider than eye flattened, subfossulate on each side, middle feebly carinate, in front provided on each side with arcuate abbreviate margin; supra-ocular lobes at the lateral margin distinct. Frontal costa in profile advanced more or less before the eyes; face lightly retreating. Antennae moderately short filiform, inserted between the lower portion of the eyes. Pronotum truncate in front, posteriorly extended backwards beyond the femoral knees long subulate or abbreviated; dorsum above flattened, between the shoulders more or less convex, behind the shoulders often bifossulate; median carina of pronotum slender scarcely elevated, sometimes interrupted; lateral carinae posteriorly on the apical process often obsolete; posterior angle of lateral lobes laminate produced outwards, armed with an oblique spine. Elytra oblong-ovate; wings

extended to or beyond the pronotal apex. Maxillary palpi elongate, very slightly compresso-ampliate. Femoral margins entire or lightly crenulate, the second femora rarely indistinctly sublobate or denticulate. First article of posterior tarsi little longer than the third.

Genotype: *Acanthalobus miliarius* BOL.

***Acanthalobus saginatus* BOL.**

1887. *Criotettix saginatus* BOLIVAR, Ann. Soc. Ent. Belg. XXXI pp. 185, 223, 225.

Ferrugineo-fuscus, rugulosus. Vertice a supero viso oculo distincte latiore, antrorsum angustato levi, lobis lateralibus antice marginatis; costa frontali inter autennas parum elevata. Pronoti dorso inter humeros convexo, pone eos fossulato, rugis abbreviatis plus minusve seriatis obsito; prozona carinis duabus retrorsum subconvergentibus; carina media parum conspicua pone humeros distincte sinuata; processu postico longe acute-subulato; spina loborum lateralium acuta, angusta. Elytris breviter oblongo-ovatis, apice valde rotundatis; alis antice ferrugineis. Carinis femorum anticorum integris, inferne haud dentatis; femoribus posticis supra parce lobatis.

Pulvillis tarsorum posticorum apice parum acuminatis. Valvis oviscapiti elongatis, angustis. Fig. 11.

Long. corpor. ♀ 12 mm., pronoti, 18 mm., fem. post. 7.5 mm.

This species is known from Burma, Southern India, Java and Sumatra.

Sumatra: Sumatra.

***Acanthalobus bispinosus* DALM.**

1818. *Acrydium bispinosum* DALMAN. Vet. Akad. Handl. p. 77.

BOLIVAR (1887 p. 226) who studied the type, gives the following description.

„Griseo-cinereus vel fusco-ferrugineus. Vertice oculo distincte latiore, antrorsum angustato, levi; lobis lateralibus antice imperfecte marginatis; costa frontali inter antennas vix elevata. Pronoti dorso deplanato, inter humeros convexius-

culo, rugis linearibus, abbreviatis, subseriatis, carina media fere indistincta, nodulosa, prozona, planiuscula, carinis postice subconvergentibus; processu postico longe subulato; spina loborum lateralium acuta, obliqua. Elytris oblingis apice distincte angustatis, acuminato-rotundatis; alis leviter infumatis, margine antico fuscior. Carinis femorum ant. integris. Femoribus posticis saepe fusco-fasciatis superne haud dentatis; tibiis subrectis; pulvillis elongatis, apice acutis. Valvis ovis-capti apice sinuatis.

Long. corporis, ♂ ♀, 10—11 mm., pronoti, 16—18 mm., fem. post. 6.5—7.5 mm."

This species is known from China, Borneo, Java and Sumatra.

Sumatra: Sumatra.

Sect. *Metrodora*.

Rhopalotettix.

1910. *Rhopalotettix* HANCOCK, Trans. Ent. Soc. London, p. 356.

Body smoothly granulose; eyes globose; face strongly retreating; vertex strongly obliquely produced in an elongate cephalic process, cuspidate at the apex, viewed from above longitudinally sulcate, sides entire: vertex, between the eyes forward broadly fossulate, middle not carinate.

Antennae long, longer than the head, inserted below the eyes; frontal costa narrowly sulcate, superior paired, ocelli placed between the lower third of the eyes; median ocellus placed far below the eyes. Pronotum anteriorly truncate, posteriorly lengthily acuminate-subulate, extended beyond the femoral apices; dorsum narrow between the shoulders, deplanate; median carina low, scarcely elevated; anterior carinae short parallel; humeral angles nearly straight; posterior angles of the lateral lobes turned down obtuse, yet obliquely excised. Elytra small and widened posteriorly, apex widely rounded; wings perfectly explicate. Anterior femora strongly elongate, superior carinae basally compressed, acute and minutely serrulate; middle femoral carinae above compressed, terminating in an apical denticle; posterior femoral carinae

above terminating in a denticle, below longitudinally curvate; genicular denticle produced. Posterior tibiae narrow, the canthi minutely serrulate and bearing many small feeble denticles; first and third articles of posterior tarsi equal in length, the third joint distinctly clavate.

Genotype: *Rhopalotettix clavipes* HANC.

***Rhopalotettix clavipes* HANC.**

1910. *Rhopalotettix clavipes* HANCOCK. Trans. Ent. Soc. London, p. 357.

Body smooth granulate; eyes prominent and strongly globose; face strongly oblique; vertex strongly obliquely produced in an elongate cephalic process, in profile extended beyond the eyes more than the greatest length of one of them, in width equal to nearly two-thirds the height of one of the eyes, and terminating in a deflexed acute spine; process ventrally compressed, the middle forming the facial median carina above, basally sinuate between the lower part of the eyes; the process extension viewed from above narrower than the vertex backward, longitudinally sulcate, sides parallel entire but cuspidate at the apex; vertex between the eyes little narrowed forward, broadly transversely fossulate, nearly equal in width to one of the eyes, middle not carinate; superior paired ocelli placed between the lower third of the eyes; median ocellus situated far below the eyes, the distance from the median ocellus to the eyes much greater than the distance between the eyes; frontal costa narrowly sulcate, forked between the paired ocelli above, downwards compressed scarcely elevated; antennae long and slender, longer than the head, consisting of fourteen articles, the first basal articles crassate, second smaller globose, the next four short and indistinct, but the rest from the seventh to the terminal apical article strongly elongate.

Pronotum anteriorly truncate, posteriorly lengthily acuminate-subulate extended beyond the hind femoral apices; dorsum deplanate, between the shoulders scarcely widened; humeral angles substraight, transversely subrounded; median

carina percurrent but low, barely elevated; anterior prozonal carinae short and parallel; lateral lobes of pronotum somewhat small, margin anteriorly arcuate; posterior angles turned down and obliquely excised.

Elytra small, widened backward, the apices rounded, the central external two-thirds marked with black; wings perfectly explicate, extended barely beyond the pronotal apex.

Anterior femora strongly elongate, superior margins little compressed basally and serrulate, below entire; middle femora elongate, superior carinae compressed, minutely serrulate and terminating in an apical spine, ventral carinae little compressed subentire or barely undulate; posterior femora slender, superior carinae forward arcuate, posteriorly terminating in distinct antegenicular denticle, very minutely serrulate, genicular apical lobe distinctly produced; ventral carinae slightly curve, carinae of external paginae distinct and between them bearing oblique granulate rugae; posterior tibiae narrow, the canthi minutely serrulate and bearing many very small denticles; first and third articles of posterior tarsi equal in length; the third tarsal article distinctly clavate, the three pulvilli of the first tarsal article equal in length and obtuse below. Colour dark cinero-griseous, the hind tibiae infusate, but light annulate behind the knees.

Entire length of body ♀ 21.2 mm.; pronotum, 13.8 mm.; posterior femora 6 mm.; hind tibiae 5 mm.; antennae 6 mm.

This species is only known from Sumatra.

Sumatra: Padang Pandjang.

Mitrariella.

1928. *Mitrariella* WILLEMSE, Zoolog. Meded. Deel XI, p. 18.

Corps légèrement rugueux. Le front est peu oblique; les antennes insérées sur la ligne qui réunirait les bords inférieurs des yeux, courtes, filiformes. Les ocelles postérieurs sont situés entre les yeux, un peu au-dessus de l'insertion des antennes. Vertex fortement prolongé en avant, avec une carène médiane; le prolongement d'une forme triangulaire, les bords avec 1—2 dents. Pronotum tronqué en avant et prolongé en arrière, subtectiforme; il se prolonge bien au

delà de l'extrémité de l'abdomen en finissant par une pointe plus ou moins aigüe ou tronquée. La surface du pronotum, ainsi que du vertex, porte quelques rugosités longitudinales. La carène médiane distincte, parcourante jusqu'au bout. Les angles huméraux sont obtus et les lobes latéraux ont leur angle postérieur dirigé en dehors et plus ou moins tronqué. Elytres petits, latéraux, en forme d'écailles ovalaires; ailes longues. Fémurs comprimés latéralement, la carène supérieure des femurs antérieurs et intermédiaires ondulés. Tibias sillonnés en dessus; tibias postérieurs peu élargis vers l'extrémité, les carènes denticulées. Le premier article du tarse postérieur presque aussi long que le troisième, pulvillis égaux.

Genotype: *Mitrariella Sumatrana* WILL.

***Mitrariella Sumatrana* WILL.**

1928. *Mitrariella Sumatrana* WILLEMSE, Zoolog. Meded. Deel XI, p. 19.

Couleur du corps brun avec des petites taches et points plus foncées ou noires. Les femurs antérieurs et intermédiaires brun-noirâtres, tibias et tarses brun-jaunâtres avec quelques taches plus foncées.

Prolongement du vertex vu de profil une et demi ou deux fois plus long que l'oeil, vu de dessus avec une dent de forme comme indique la figure.

Ailes aussi longues que le pronotum.

Longueur du corps	♂	♀
	16.5 mm.	20—21 mm.
Longueur du pronotum	15 „	18—18.5 „
Longueur du femur poster.	7 „	8—8.5 „

This species is only known from Sumatra.

Sumatra: Buo, Padangsche bovenlanden (coll. E. Jacobson), Sumatra.



Fig. 12. *Mitrariella sumatrana* WILL. type.

Systolederus.

1887. *Systolederus* BOLIVAR, Ann. Soc. Ent. Belg. XXXI, pp. 185, 194, 234.

Capite exserto; vertice oculo dimidio angustiore, antrorsum angustato et sub-acuminato, oculis valde globosis; facie obliqua; costa frontali vix pone ocellos furcillata, subtiliter sulcata, a latere visa inter antennas compresso elevata, antice sinuata: antennis vix ante oculos insertis, filiformibus, articulis elongatis: palpis max. fuscis, filiformibus.

Pronoto supra deplanato, antice truncato, postice acuminato, carina media parum conspicua, prope marginem anticum evanida; angulis humeralibus obtusis; angulo postico



FIG. 13a



FIG. 13b



FIG. 14



FIG. 15

Fig. 13. *Systolederus cephalicus* DE HAAN. — Fig. 14. *Mazarredia asperula* BOL. cotype. — Fig. 15. *Xistra tricristata* BOL. var. *Sumatrana* BOL. cotype.

loborum lateralium extrorsum plus minusve explanato, plerumque acute spinoso vel deorsum deflexo. Elytris ovatis; alis perfecte explicatis. Pedibus elongatis, filiformibus, carinis femorum ant. minute granulatis; lobis femorali atque geniculari femorum posteriorum parvis; tibiis posticis apicem versus parum ampliatis, marginibus compressis, spinosis; articulis primo tertioque post. subaeque longis.

Genotype: *Systolederus Haani* BOL.

***Systolederus cephalicus* DE HAAN.**

1843. *Acridium (Tetrix) cephalicum* DE HAAN, Temminck Verhand. Orth. pp. 167, 169.

1928. *Acridium (Tetrix) cephalicum* WILLEMSE, Zoolog. Med. Deel XI, p. 20.

I had the opportunity to study the type of DE HAAN giving the following description.

„Couleur brune avec des figures jaunes. Le vertex avec

une ligne médiane plus foncée. Le sommet du fastig. vertic. un peu plus large que le premier article de l'antenne. Yeux saillants. Côte frontale comprimée entre les antennes, près du clypeus se divisant en deux branches. Le dos du pronotum concave dans la partie antérieure, la partie postérieure droite, avec une faible gibbosité dans le milieu. La partie postérieure avec une figure jaune en forme de V ou X allongée. Près du sillon typique avec une bande transversale plus ou moins jaune, qui se prolonge sur le lobe latéral. Le processus du pronotum dépassant bien l'apex du fémur postérieur. L'angle postérieur du lobe latéral un peu dilaté en dehors et rectangulaire. Elytres très petits, lobiformes. Ailes aussi longues que le processus. Les segments de l'abdomen avec deux tâches jaunes à chaque côté. Les pattes antérieures et intermédiaires avec des tâches plus claires ou jaunâtres. Fémur postérieur avec une tâche diagonale jaune sur la côté externe qui se prolonge jusqu'à la partie supérieure de la côté interne et avec un anneau jaune praegéniculaire. Tibia postérieur jaunâtre, le base et l'apex brun-noirâtre. Tarse postérieur jaunâtre, les pulvillis du premier article égaux. Fig. 13.

	♀
Longueur du corps	17.5 mm.
„ „ pronotum	15 „
„ „ femur postérieur	9 „

This species is only known from Sumatra.

Sumatra: Padang.

Mazarredia.

1887. *Mazarredia* BOLIVAR, Ann. Soc. Ent. Belg. XXXI, pp. 185, 194, 236.

Capite parum vel minime exserto: vertice oculo parum angustiore vel sublato plerumque antrorsum angustato, utrinque carina obliqua plus minusve compressa; facie parum obliqua, costa frontali vix pone ocellos furcillata, ramis antrorsum parum divergentibus a latere visa inter antennas breviter compresso-elevata, antice posticeque sensim sinuata: antennis filiformibus saepe valde elongatis, parum ante

oculos insertis; ocellis posticis vix ante medium oculorum positis; articulis apicalibus palporum max. angustis, subcompressis. Pronoto supra deplanato, inter humeros saepe gibbosulo, antice truncato, postice longe acuminato, angulis humeralibus obtusis; angulo postico loborum lateralium extrorsum plus minusve laminato-expanso, valde truncato, acute angulato sed haud spinoso, rarissime deorsum verso. Elytris ovatis; alis perfecte explicatis.

Pedibus elongatis; femoribus anterioribus compressiusculis, superne carinatis, carinis integris vel suaviter undulatis; tibiis posticis apicem versus parum ampliatis, utrinque spinosis; articulis primo tertioque tarsorum posticorum aequae longis.

Genotype: *Mazarredia gemella* BOL.

***Mazarredia asperula* BOL.**

1898. *Mazarredia asperula* BOLIVAR, Ann. Mus. Civ. Stor. Nat. Genova XXXIX, p. 72.

Testacea vel grisea, fusco varia vel omnino fusca. Caput haud exsertu. Vertex pronoto aequae altus oculo latior, antorsum angustatus, medio subtiliter carinatus et utrinque fossulatus, carina compressiuscula, antice inflexa terminatus, postice ab occipite ruga transversa sejunctus. Costa frontalis inter antennas compresso-elevata, inter ocellos sinuata. Pronotum supra deplanatum, pone humeros concaviusculum, granuloso-rugosum, carina media ante humeros modice et breviter cristulata, carinis lateralibus prozonae retrorsum convergentibus, processu apicem femorum modice superante; angulus posticus loborum lateralium extrorsum ampliatus, oblique truncatus, subobtusatus.

Elytra oblonga, impresso-punctata. Femora antica obscure undulata. Femora postica strigis areae supero-externae noduloso-incrassatis, carina superiore crenata. Tibiae fuscae, albido annulatae. Articulus primus tarsorum posticorum pulvillis apice truncatis, pulvillus tertius secundo parum longior.

Long. corp. ♂ ♀ 8.5—11.5 mill.; pron. 10—12 mill.; fem. post. 5.5—6.5 mill. Fig. 14.

This species is only known from Sumatra.

Sumatra: Si-Rambé.

Mazarredia quadricarinata BOL.

1898. *Mazarredia quadricarinata* BOLIVAR, Ann. Mus. Civ. Stor. Nat. Genova XXXIX, p. 73.

Grisea, fusco-variegata. Caput vix exsertum. Vertex pronoto parum altior, oculo valde angustior, postice granosus, antice breviter tricarinatus, carinis lateralibus pallidis, antice convergentibus. Costa frontalis inter antennis, compresso-elevata, rotundata, basim versus declivis et subsinuata. Pronotum superne deplanato-undulatum, pone humeros concaviusculum, subfossulatum, minute rugosum; carina media ante et pone humeros sinuato-biundata; carinis lateralibus prozonae brevissimis, parallelis; carinis processus compresso subelevatis, intus carina parallela instructa, antice inter humeros ramo obliquo interno plerumque oblitterato emittente; processu femorum posticorum modice superante; angulus posticus loborum lateralium obtusus, extrorsum expansus, postice oblique truncatus. Elytra oblonga, impresso-punctata, saepe extus fusco-marginata. Femora antica carinis rectis; intermedia obscure undata; postico strigis paginae externae modice elevatis, granosis, carina superiore minute crenulata. Tibiae fuscae, albido annulatae. Articulus primus tarsorum posticorum pulvillis haud acute productis; pulvillus tertius secundo distincte longior.

Long. corp. ♀ 9—10 mill.; pron. 10 mill.; fem. post. 5 mill.

This species is only known from Sumatra.

Sumatra: Si-Rambé.

Xistra.

1887. *Xistra* BOLIVAR, Ann. Soc. Ent. Belg. XXXI, pp. 186, 194, 242.

Capite modice exserto. Vertice plerumque depresso, utrinque carinis obliquis plus minusve compressis antrorsum subconvergentibus postice saepe acute productis; oculis vertice altioribus; facie obliqua; costa frontali pone ocellos furcillata, ramis antrorsum parum divergentibus, inter antennis leviter compresso elevata; antennis vix ante oculos insertis, filiformibus, elongatis, palpis haud dilatatis. Pronoto angusto,

antice truncato, postice longe subulato; angulis humeralibus obtusis; angulo postico loborum lateralium extrorsum parum vel fere indistincte producto, angustato, subrotundato-truncato. Elytris ovatis; alis perfecte explicatis. Pedibus elongatis femoribus anterioribus compressis, supra carinatis; tibiis posticis apicem versus haud vel leviter ampliatis: carinis parce dentatis; articulis primo tertioque tarsorum posticorum subaeque longis vel primo tertio parum longiore.

Genotype: *Xistra gorgorzae* BOL.

***Xistra tricristata* BOL.**

1898. *Xistra tricristata* BOLIVAR, Ann. Mus. Civ. Stor. Nat. XXXIX, p. 75.

Colore fusco vel griseo fusco-maculato. Corpore sparse granoso. Vertex oculo parum latior horizontalis, carina media antice distincte producta, utrinque carinula sursum producta ab antico visa oculo subaltiore instructus. Costa frontalis pone antennis sinuata. Antennae vix ante oculos insertae. Ocelli inter oculos positi. Pronotum postice subulatum, femora postica superans, granulose, punctatum, carinulae marginales prozonae postice modice convergentes; carinis lateralibus metazonae ante angulos humerales distincte curvatis, compressiusculis; carina media a latere visa prope marginem anticum et inter humeros sinuata; angulo postico loborum lateralium concaviusculo, rotundato-truncato. Femora antica supra compresso-carinata, arcuata atque sinuata, subtus lobato-crenata. Femora intermedia supra subtusque compresso-carinata, undulata, subtus ante medium late sinuata. Femora postica carina superna angusta irregulariterque marginato-serrulata, pagina externa rugulis elevatis. Tibiae pallide annulatae. Tarsorum posticorum articulis primo et tertio subaeque longis.

Long. corp. ♂—♀, 8.5 mill.; pron. 11 mill.; fem. post. 5.15 mill. Java.

var. sumatrana BOL.

Carinis lateralibus pronoti ante humeros rectis nec arcuatis nec compresso-elevatis. Angulo postico loborum lateralium

anguste rotundato. Femoribus quatuor anterioribus carinis laevissime undatis. Fig. 15.

Sumatra : Si Rambé.

***Xistra sagittata* BOL.**

1887. *Paratettix sagittatus* BOLIVAR, Ann. Soc. Ent. Belg. XXXI. pp. 188, 280.

Badius vel albido-cretaceus, vel pallidus, unicolor vel fusco-variegatus; dorso pronoti saepe medio furco biplagiato. Capite parum exserto: vertice oculo parum angustiore, medio obtuse carinato, antice carinis utrinque rotundatis: costa frontali inter oculos arcuata vel obtuse sinuata. Pronoto longe subulato, dorso subdeplanato, punctato, carina media percurrente, compressiuscula, haud sinuata. Femoribus carinis rectis vel obscure undulatis; tarsorum posticorum pulvillis apice acutis, tertio duobus primis unitis sublongiore.

Long. corporis ♀ 9 mm, pronoti 11.5 mm. fem. post. 6 mm.

This species is known to occur in the Philippines and Sumatra.

Sumatra : Pangherang-Pisang.

***Tripetalocera*.**

1830. *Tripetalocera* WESTWOOD. Zoolog. Journ. V, p. 444.

Capite modice exserto, conico; vertice transverso, latissimo, antice haud marginato; oculis globosis, substylatis; facie valde obliqua; costa frontali inter antennis fortiter producta, late sulcata; antennis inter oculos insertis, articulis 10—12 compositis, angulos humerales multo superantibus; articulo primo globoso, secundo subcyclindrico, reliquis latis, triquetris, forma insolita, duobus apicalibus minutis, subulatis: palpis brevibus, haud dilatatis. Pronoto antice truncato, postice acuto, angulis humeralibus obtusissimis, fere nullis: angulo postico loborum lateralium acuto.

Elytris oblongis, parvis; alis apicem pronoti non attingentibus. Pedibus compressis, femoribus supra carinatis; tibiis tetragonis, apicem versus distincte angustatis: tibiis posticis non spinosis, canthis fortiter serratis: articulo primo tarsorum posticorum tertio parum longiore, pulvillis haud acute-spi-

nos. Valvulis ovipositoris rectis, dentatis sed non sinuatis.

Genotype: *Tripetalocera ferruginea* WESTW.

***Tripetalocera ferruginea* WESTW.**

1830. *Tripetalocera ferruginea* WESTWOOD. Zoolog. Journal V, p. 444, Tab. 22, fig. 3:

Ferruginea, grosse impresso-punctata. Vertice oculo plus duplo latiore, linea transversa subelevata instructo: antennis fuscis, articulis mediis fortiter triedris, canthis foliaceis subulatis, serratis.



Fig. 16. *Tripetalocera* sp. apicem parum ampliatis: articulo primo tarsorum posticorum pulvillo tertio duobus primis unitis longiore. Articulo apicali abdominis ♂ haud acuminato, sub-bidentato.

Long. corporis ♂ ♀ 14—15 mm., pronoti 13—15 mm., fem. post. 5.5—6 mm.

This species is known from India, Penang and Borneo. Sumatra: Serapei kur. 1 ♀ (coll. E. JACOBSON).

It is not impossible that this species proves to be a new one, but the material is insufficient to decide.

SUBFAM. II EUMASTACINAE¹⁾.

Key to the genera.

1. Frontal ridge between the antennae smooth, more or less dilated.

¹⁾ Mr. E. JACOBSON made the following observations and wrote to me: „Some forms belong to the most brilliant coloured insects that I

2. Pronotum tectiform and foliaceous, strongly compressed; hind femora dilated and compressed

. (subfam. (*Choroetypinae*) **Chorotypus** SERV.

2.2. Pronotum normal; hind femora not dilated.

(subfam. *Erianthinae*).

3. Fastigium of vertex strongly raised vertically, erected.

. **Erianthus** STÅL.

3.3. Fastigium of vertex projecting horizontally beyond the eye

. **Mnesicles** STÅL ¹⁾.

1.1. Frontal ridge between the antennae narrow, sulcated. Pronotum never foliaceous.

(subfam. *Eruciinae*).

2. Fastigium of vertex strongly raised, erected.

. **Eupatrides** BR. V. W. ²⁾

2.2. Fastigium of vertex normal, rounded.

Erucius STÅL.

Chorotypus ³⁾.

1839. *Chorotypus* SERVILLE, Hist. Natur. d. Ins. Orth. p.751.

Body slender, strongly compressed laterally; size medium. Antennae short, with 11—12 joints. Face perpendicular or slightly oblique, fastigium of vertex raised above the eyes into an obtuse or slightly bifid spine, directed forwards; frontal ridge widened between the antennae, below the ocellum obliterate; front below the eyes flattened, concave, rugosely punctured, lower margin truncate. Lateral facial carinae very distinct, straight, almost perpendicular. Eyes long, oval.

know. It is a pity that these colours disappear soon after they are killed. The Eumastacinae are living in the forest; especially at the borders of it, where they may be found on the plants growing there. What they are feeding upon, I do not know. It seems that most grasshoppers are only eating during the night or twilight, for I never saw a grasshopper eating."

¹⁾ Till now only known from the Mentawai-Islands, not from the main land of Sumatra.

²⁾ Malcolm Burr wrongly placed this genus into the subfam. *Erianthinae*. For the further differences between the genera *Eupatrides* and *Erucius*, consult the descriptions of the genera.

³⁾ I abstain from giving synonyms, in the prospect of the monographic revision of Eumastacinae by C. BOLIVAR, appearing shortly.

Pronotum strongly compressed laterally, foliaceous, covering the head and a great part of the abdomen; lateral keels absent; lateral lobes higher than long, lower margin obliquely ascending anteriorly, anterior and posterior angle rounded. Elytra and wings long, reaching far behind the apex of the hind femora; elytra coriaceous, apex rounded or more or less pointed, apical margin truncate; somewhat shorter than the wings.

Wings hyalinous, anterior margin slightly arcuate, apex caudiform or more or less pointed, posterior margin near the apex with a concave excavation.

Abdomen strongly compressed laterally with a distinct median keel on each segment, terminating posteriorly in a sharp tooth on the first segments.

Legs compressed laterally; anterior and median femora subserrate from above and from below; upper carina of hind femora acutely dentate; hind tibiae with a post-basal triangular dilatation on the outer side; with 18—20 equal outer and 20 unequal inner spines, the latter alternatively arranged. Hind tarsi compressed, first joint carinated from above and serrated on the outer side.

Subgenitalplate of male elongate, apex pointed.

Valves of ovipositor elongate, lower valves denticulate.

Only represented by one species.

Chorotypus fenestratus SERV.

1839. *Chorotypus fenestratus* SERVILLE, Hist. Natur d. Ins. Orth. p. 753.

General coloration entirely brown. Crest of pronotum often with a round vitreous spot about the middle. Elytra with dark brown spots in the cellules; with a transparant spot in the middle and an oblique row of transparent spots near the apex. Wings hyalinous or pale yellowish, anterior margin and the apex dark brown. Fig. 17, 18.

	♂	
Length of body	19—22	mm.
» » pronotum	12—13	»
» » elytra	19—23	»
» » hind femora	10—12	»

This species is known to occur in Borneo, Bengalen (?), Perak and Sumatra.



FIG. 17

Chorotypus fenestratus
SERV. Head in front.

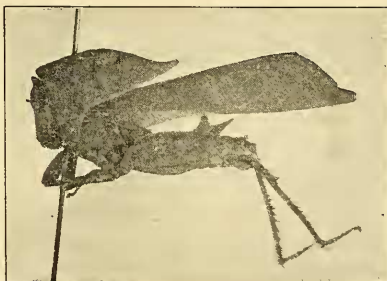


Fig. 18. *Chorotypus fenestratus* SERV.

Sumatra: Lau Rakit, Medan (Mjöberg), 1 ♂ Sumatra (col. mea).

Erianthus.

1875. *Erianthus* STÅL., Bih. Svensk. Akad. Handl. III (14), p. 36.

Body slender, elongate, slightly compressed laterally; size medium. Antennae short, with 11–12 joints. Face slightly oblique; fastigium of vertex raised above the eyes, erect, tapering, with the apex straight or slightly reflexed, obtuse. Front flattened, rugosely punctured, frontal ridge low, dilated between the antennae, below the ocellum subparallel or subobliterate.

Lateral facial carinae distinct, straight, almost perpendicular. Fastigium of vertex and occiput with a median carinula. Eyes long, oval.

Pronotum slightly tectiform or selliform; median keel distinct, sometimes laminately raised; anterior margin truncate, posterior margin rounded; lateral keels absent. Lateral lobes of pronotum subquadrate, lower margin obliquely ascending anteriorly, anterior angle rounded, posterior angle straight or acute.

Elytra and wings reaching beyond the apex of hind femora. Elytra transparent or subcoriaceous at the base, with but few principal veins, gradually widened towards

apex, apex rounded, apical margin truncate or with a round excavation. Wings triangular, subhyaline.

Anterior and median femora slightly compressed laterally, carinated from above, sulcated from below. Hind femora rather slender, upper carina sparsely dentate; hind tibiae with 15—20 inner and 22—25 outer spines, the inner spines longer than the outer ones. First joint of hind tarsi sulcate from above and serrated on both sides.

Abdomen with the eighth segment strongly expanded in the male, the anal appendages very large, supra-analplate bilobate, cercus dilated and incrassate basally, narrowing apically, acutely incurved in apical third. Subgenitalplate of male absent.

Supra-analplate of female triangular, with the apex obtuse, with a round and oval impression basally.

Cercus short, conical, apex obtuse. Valves of ovipositor slender, granulated, margins serrate.

Subgenitalplate elongate, with a deep triangular incision in the posterior margin.

Only represented by one species.

***Erianthus guttatus* WESTW.**

1841. *Mastax guttata* WESTWOOD, Arcana Ent. I, p. 100, pl. XXVI, fig. 3.

This species is unknown to me. Kirby (60, p. 88) who studied the type gives the following description.

“Blackish, face and head below the eyes more or less yellow. Fastigium of the vertex erect, pointed; antennae thickened in the male, filiform in the female. Pronotum nearly smooth, with a slight median carina, and obtusely angulated behind; the sides broadly and the extremity narrowly yellow. Tegmina brown, the interspaces subhyaline, and two large white spots, one on the costa near the tip and the other at five-sixths of the length of the hind margin; hind margin regularly oblique. Wings hyaline, clouded towards the extremities. Abdomen much thickened before the extremity, and the lower valves in the female thick and strongly recurved.

Length 17—18 mm.; expanse of tegmina 32—42 mm."

Brunner von Wattenwyl (18, p. 223) gives the following dimensions.

	♂	
Length of body	17	mm.
» » pronot.	2.6	»
» » elytra	16	»
» » hind femora	10	»

This species occurs in Cambodia, Malay States, Burma, Philippines and Sumatra.

Sumatra: Sumatra (coll. WESTWOOD, Mus. London).

Eupatrides.

1898. *Eupatrides* BRUNNER VON WATTENWYL. Abhandl. Senckenb. Ges. XXIV, pp. 225, 230.

Body slender, elongate, slightly compressed laterally; size medium. Antennae short, with 10—11 joints, joints somewhat flattened. Face strongly oblique; fastigium of vertex raised above the eyes, erect, obliquely ascending, the apex truncate. Front flattened, rugosely punctured; frontal ridge low, sulcate, not dilated between the antennae, below the median ocel suddenly constricted or thickened, margins parallel, subobliterate near the middle of the front, dissolved in the rugose puncturation of the front. Lateral facial carinae slightly curved, irregular, the lower part straight. Fastigium of vertex convex, occiput with a median sulcus and some longitudinal rows of tubercles, as for the rest rugosely punctured. Eyes long, oval.

Pronotum cylindrical, disc of pronotum rounded; median keel perceptible, lateral keels absent, anterior margin and posterior margin rounded; lateral lobes longer than high, lower margin slightly ascending anteriorly, anterior angle broadly rounded, posterior angle near 90°. Elytra and wings reaching beyond the apex of hind femora.

Elytra with a very dense reticulation, subcoriaceous, slightly widened apically; costal area expanded basally, apical margin truncate-emarginate. Wings cycloid.

Anterior and median femora carinate from above and

below, the lower outer carina of the anterior femora with a little tooth apically.

Hind femora compressed laterally, carinae acutely serrate, the upper carinae terminating in a long spine apically.

Hind tibiae with 11—12 inner and 16—18 outer spines, the inner spines longer than the outer ones and alternatively with longer and shorter ones. First joint of hind tarsi from above carinated with 4—5 spines. Hind margin of the penultimate tergite in the male bi-lobate: Supra-analplate of male decurved, lanceolate, sulcate. Cercus rounded, slightly curved. Subgenitalplate broad, hind margin bi-lobate.

Supra-analplate of female lanceolate, apex obtuse. Cercus short, apex slightly curved, pointed. Valves of ovipositor slender, long, margins denticulate. Subgenitalplate elongate, hind margin with a deep incision in the middle.

Only represented by one species.

***Eupatrides cyclopterus* DE HAAN.**

1842. *Acridium (Mastax) cyclopterus* DE HAAN. Verhand. Overz. Bez. Orth., pp. 163, 164, n. 3, pl. 22, fig. 1.

General coloration brown. Fastigium of vertex, vertex and disc of pronotum blackish brown. Elytra brown, opaque, with

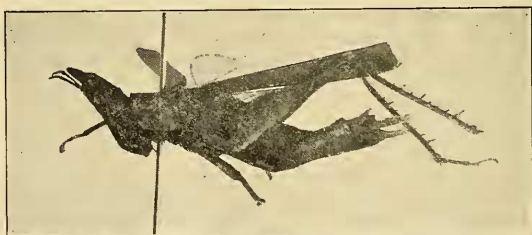


Fig. 19. *Eupatrides cyclopterus* DE HAAN.

a semi-transparent little spot near the anterior and a same but larger spot near the posterior margin near the apex.

Wings yellow, with a small brownish band along the posterior margin.

The greater spines of the inner margin of hind tibiae yellowish with black tips.

	♂	♀
Length of body	25 mm.	28 – 37 mm.
» » pronotum	3.8 »	4 – 5 »
» » elytra	16 »	20 – 23 »
» » hind femora	11 »	13 – 15 »

This species is occurring in Java, Borneo and Sumatra.

Sumatra: 1 ♀ Kloof van Harau, XI 1913 (E. JACOBSON).

Erucius.

1875. *Erucius*. STÅL. Bihang Svensk. Akad. Handl. III (14), p. 36.

Body slender, elongate, slightly compressed laterally; size medium. Antennae short, filiform, with 11 – 12 joints. Face oblique. Front flattened, finely punctured, nearly smooth; frontal ridge between the antennae and below the median ocel shallowly sulcate, not dilated, below the median ocel sometimes subobliterate, margins parallel. Lateral facial carinae distinct, slightly sinuate. Fastigium of vertex not at all erected, forming with the frontal ridge a rounded angle. Eyes long, oval. Pronotum cylindrical, rounded; median keel distinct, lateral keels absent, anterior margin truncate, posterior margin rounded. Lateral lobes of pronotum longer than high, lower margin slightly ascending anteriorly, anterior angle rounded, posterior angle acute. Elytra and wings reaching beyond the apex of hind femora. Elytra transparent, with but few veins, widened apically, costal area slightly widened basally, apical margin truncate. Wings triangular, hyaline, apex rounded. Anterior and median legs slender, slightly compressed laterally; anterior and median femora shallowly sulcate from below. Hind femora compressed laterally, upper carinae distinctly dentate, lower ones subdentate or smooth. Hind tibiae with 16 – 18 inner and 20 – 24 outer spines, the inner spines longer than the outer ones. First joint of hind tarsi sulcate from above, the outer margin densely serrate. The penultimate abdominal segments in the male strongly expanded. Supra-analplate of male short, bilobate. Cercus short, apex obtuse, distinctly

incurved in apical third. Subgenitalplate narrow, apex more or less truncate. Supra-analplate of female lanceolate, apex obtuse. Valves of ovipositor with their margins serrate. Subgenitalplate elongate, posterior margin rounded-truncate.

Key to the species.

1. Hind femora in the basal half red, apical half black with one or two yellowish spots from above. Apex of the abdomen in the male black **dimidiatipes** BOL.

1.1. Hind femora yellowish or yellowish brown, variegated with blackish brown bands or stripes. Apex of the abdomen in the male black and yellow **apicalis** WESTW.

Erucius dimidiatipes BOL.

1898. *Erucius dimidiatipes* BOLIVAR. Ann. d. Mus. d. Stor. Nat. di Genova. Ser. 2, vol. XIX (XXXIX) p. 81.

General coloration black. Antennae black, first joint often yellowish. Front often dirty yellowish-green. Between the eyes with a yellowish-green spot.



Fig. 20. *Erucius dimidiatipes* BOL.

Pronotum black, lateral lobes with some yellowish-green spots or yellowish green with black spots.

Elytra hyaline, apical half slightly infumated, veins black.

Wings hyalinous, slightly infumated. Abdomen yellowish-green with black spots on either side or black with yellowish-green spots; in the male with the apex black. Hind femora in the basal half red (sometimes yellow), apical half black

with one or two yellowish-green spots or stripes from above. Hind tibiae and tarsi black or blackish-brown.

	♂	♀
Length of body	17—20 mm.	22 mm.
» » pronotum	2.5—3 »	3 »
» » elytra	20—22 »	24 »
» » hind femora	11—12 »	14.5 »

This species is only known from Sumatra.

Sumatra: Lubuksikaping, Anai Kloof, Serapai, Tandjong Andalas (E. JACOBSON) Moena Laboe, Loeboe Bankoe, Rawas, Si Rambé, Datar, Sibolangit, Brastagi.

***Erucius apicalis* WESTW.**

1841. *Mastax apicalis* WESTWOOD, Arcana entom. I. p. 100, tab. 26, fig. 1.

1842. *Acridium (Mastax) Agrionoides* DE HAAN. Verhand. Overz. Bez, Orth. p. 163, No. 2, pl. 22, fig. 4.

General coloration yellowish or yellowish brown with black. Antennae yellowish, darker apically. Head yellow, vertex yellowish-green with a broad blackish brown band continuing posteriorly on the disc of the pronotum. Disc of pronotum blackish-brown or with a yellow median band. Elytra hyaline or



Fig. 21. *Erucius apicalis* WESTW.



FIG. 22

Erucius apicalis WESTW.
Head in front.

hyaline with the apex or with the apex and an oblique post-apical band brown or blackish brown.

Wings hyaline with or without the apex brown or blackish

brown. Abdomen yellow with black spots variegated, apex of abdomen black and yellow. Hind femora yellowish, variegated with brownish or black stripes or bands. Hind tibiae blackish or brownish; hind tarsi yellowish, apex of joints brownish. Fig. 21, 22.

	♂	♀
Length of body	13 - 16 mm.	23 - 26 mm.
» » pronotum	2 - 2.8 »	3.5 - 4 »
» » elytra	11 - 19 »	24 - 25 »
» » femora	10 - 11.5 »	14 15 »

This species occurs in Philippines, Borneo, Java and Sumatra.

Sumatra: Lubuksikaping, Anai Kloof, Muara Sako, Buo, Kloof van Harau, Muara Kiawai, Aur Kumanis, Gun. Teleman, (E. Jacobson) Moena Laboe, Tandjong Morawa Serdang, Sibolangit, Deli, Lau Rakit, Tandjah Mara, Medan, Kota Tjane, Perdagangan.

SUBFAM. III. ACRIDINAE.

Key to the genera.

1. Temporal foveolae visible from above, variabel in form, well developed or scarcely impressed.

2. Discoidal area of elytra with a well developed intercalate vein.

Sect. *Aeolopi* **Aiolopus** FIEB.

2.2. Discoidal area of elytra without or with only indistinctly developed intercalate vein.

Sect. *Prostethophymae* **Eoscyllina** REHN.

1.1. Temporal foveolae not visible from above, inferior, or absent.

2. Head very long, fastigium of the vertex extended considerably in front of the eyes.

Antennae flattened, ensiform. Elytra long, narrow, and pointed.

Sect. *Acridae* **Acrida** L.

2.2. Head moderately long, fastigium of the vertex not extended considerably in front of the eyes. Antennae filiform or only slightly dilated. Elytra with the apex rounded.

Sect. *Phlaeobae* **Phlaeoba** STÅL.

Aiolopus.

1853. *Aiolopus* FIEBER, Lotos III, May, p. 100; idem Synopsis d. europ. Orthopteren 1854, p. 11.

1854. *Epacromia* FISCHER, Orthopt. europ. Nov., pp. 296, 360.

Size medium, form slender. Antennae filiform, slightly longer than the head and pronotum together ♂, or shorter ♀.

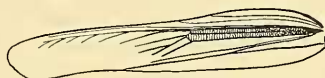


FIG. 24

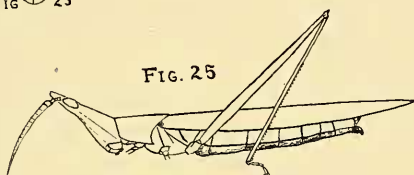


FIG. 25



FIG. 27



FIG. 29

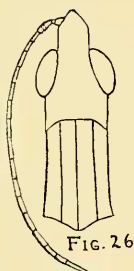


FIG. 26



FIG. 28



FIG. 30

Fig. 23. *Aiolopus tamulus* FABR. — Fig. 24. *Aiolopus tamulus* FABR. elytra. — Fig. 25. *Acrida turrita* L. ♀. — Fig. 26. *Phlaeoba antennata* BR. v. W. ♂. — Fig. 27. *Phlaeoba antennata* BR. v. W. Cerci and Subgenitalplate. — Fig. 28. *Phlaeoba unicolor* BOL. — Fig. 29. *Phlaeoba unicolor* BOL. ♂. Cerci and Subgenitalplate. — Fig. 30. *Trilophidia annulata* THUNB. ♂.

Head slightly reclinate. Frontal ridge flat or feebly impressed near the middle ocellus, feebly divergent towards the clypeus or subparallel, with margins obtuse; punctured. Lateral

facial carinae very distinct, curved. Fastigium of vertex triangular, sharply margined, its surface slightly concave. Temporal foveolae visible from above, longer than wide, perfectly margined. Occiput distinctly sloping backwards. Pronotum short, disc practically flat, constricted in the prozona, tricarinate; the median keel low and well developed, lateral keels incurved and strongly divergent posteriorly, slightly marked, generally with a pale border; first and second transverse sulci faintly indicated not reaching the median keel, third sulcus distinct, intersecting the median and lateral keels, and placed a little before the middle of the pronotum; hind margin rounded. Lateral lobes of pronotum much higher than long, with the lower margin ascendant in the anterior part and both fore and hind angles obtuse, rounded.

Mesosternal lobes perfectly transverse, about twice as broad as long, with hind angles widely rounded, interspace narrower than the lobes. Metasternal lobes separated by a small interspace. Elytra long, well developed, reaching far beyond the hind knees, obtusely rounded at the apex; mediastinal area with indistinct basal dilatation, discoidal area not reaching beyond the middle of elytra, with an irregular false vein.

Wings hyaline with normal venation. Hind femora relatively broad, the kneelobes rounded.

Hind tibiae rounded, slightly incurved in the basal part, almost straight; the inner spurs somewhat longer than the outer ones. Hind tarsi short, the first joint about as long as the two others together. Supra-anal plate of the male obtusely triangular, about as long as broad. Cerci rounded, with the apex obtuse; subgenital plate short, obtusely conical. Subgenital plate of the female longer than broad, its hind margin rounded. Valvae of the ovipositor obtuse.

Genotype: *Gryllus thalassinus* FABR.

Only represented by one species.

***Aiolopus tamulus* FABR.**

1798. *Gryllus tamulus* FABRICIUS, Entom. Syst. Suppl. p. 195.

1815. *Gryllus dorsalis* THUNBERG, Mém. Acad. Pétersb. V, p. 229.

1838. *Gomphocerus tricoloripes* BURMEISTER, Handb. d. Entom. II, p. 649.

1870. *Epacromia simulatrix* WALKER, Cat. Derm. Salt. B. M. IV, p. 773.

General coloration brown, reddish, yellowish or greenish. Antennae yellowish-brown, darker apically, Head yellowish or greenish, sometimes with some brown spots on the frontal ridge and cheeks. Vertex reddish brown, generally with two parallel brown stripes, running from the upper margin of the eye to the anterior margin of pronotum. Margins of fastigium often more brown or blackish-brown.

Lateral postocular fasciae brown. Pronotum yellow, prozona more reddish-yellow, metazona greenish yellow. Lateral keels bordered in the prozona from below, in the metazona from above by a blackish-brown band. In the metazona is this blackish-brown band not always running to the posterior margin of the pronotum but dissolving itself in the greenish yellow of the metazona. Lateral lobes greenish-yellow with an irregular brown spot near the middle of the anterior margin.

Elytra brown or blackish-brown, with dark spots in the area mediastina, discoidalis and the apical half, more or less indicated. Along the radial vein with a yellowish or greenish stripe not extending beyond the middle of elytra.

Wings hyalinous. Hind femora slightly compressed laterally, with the upper and lower carinae sharply indicated. Color yellowish brown or greenish, mostly with some irregular dark spots or bands in the outer and inner area and sometimes in the upper area. Hind knee brown, with a yellowish praegenicular ring. Hind tibiae with a broad pale-yellowish postbasal ring, blue in the middle and red or reddish in the apical third. Spines yellowish with black tips. Hind tarsi yellowish-brown. Abdomen yellowish brown. Fig. 23, 24.

	♂	♀
Length of body	18 - 20 mm.	28 mm.
» » pronotum	3 - 3.5 »	4.5 »
» » elytra	16 - 17 »	24 »
» » hind femora	10 - 11 »	9 »

A widely distributed species ranging from India and Ceylon to Japan and Australia.

Sumatra: Padang, Fort de Kock, Anai Kloof, Sinabang-Simalur, (E. JACOBSON) Solok, Soeroel, Medan, Bandar Baroe, Kota Tjane.

Eoscyllina.

1909. *Eoscyllina* REHN, Bull. Americ. Mus. of Nat. Hist. vol. XXVI, pp. 186, 187.

Represented by the only known species **E. inexpectata** REHN. This species is unknown to me. REHN gives the following description.

Eoscyllina inexpectata REHN.

Size rather small; form elongate, slender, slightly compressed. Head with the occiput slightly ascending; interocular region slightly narrower than the fastigium; angle of the fastigium rectangulate, greatest fastigial width distinctly exceeding the length of the same, disk shallowly depressed within the margins; lateral foveolae almost entirely visible from the dorsum, subrectangulate, nearly twice as long as wide, distinctly impressed; angle of the fastigium rather narrowly rounding into the face, which is distinctly retreating and slightly arcuate; frontal costa distinctly expanding from the apex to the insertion of the antennae, very gradually expanding ventrad from the ocellus to the clypeal suture, shallowly and uniformly excavated with a short median carina dorsad; eyes acute ovoid, twice as long as the infraocular portion of the genae; antennae slightly longer than the head and pronotum, slightly flattened proximad. Pronotum with the greatest caudal width of the disk contained one and two fifths times in the length of the same; cephalic margin of disk subtruncate, caudal margin obtuse-angulate with the immediate apex rounded; lateral angles faintly carinate, very slightly diverging caudad on the prozona, more distinctly diverging on the metazona; median carina distinct, severed very slightly before the middle; lateral lobes about as long as deep, ventral margin obtuse-angulate, metazona cribroso-punctate. Interspace between the mesosternal lobes subquadrate; metasternal lobes attain-

gent. Tegmina slender, extending caudad of the tips of the femora a distance about equal to the length of the pronotum, apex rounded, the whole apical portion very slightly curved toward the sutural margin; the intercalary vein is represented by an irregular substitute, which is sometimes broken and at no point possesses the strength or regularity of a true intercalary vein.

Caudal femora nearly twice the length of the head and pronotum together, moderately inflated proximad, rather slender distad, pattern of the pagina distinct and regular; caudal tibiae distinctly shorter than the femora, armed with ten spines in the external series, with eleven spines in the internal series, internal calcaria distinctly unequal, falcate.

General color russet on the head, dorsum of pronotum and caudal femora, becoming bistre on the distal portion of the tegmina. Head touched with mummy brown on the lateral portions; eyes burnt umber; antennae mummy brown. Lateral lobes of the pronotum touched with dashes of bistre. Tegmina with the discoidal field as a whole darker than the costal and anal fields, a pattern of about six small quadrate pale spots present on the proximal portion of the same field. Caudal femora with the pagina rather hoary, the genicular arches blackish and the ventral and internal face as well as the caudal tibiae saturn red, spines with their apical halves black.

	♀	
Length of body	21	mm.
» » pronotum	4	»
Greatest caudal width of pronotum	2.6	»
Length of elytra	21	»
» » caudal femur	13.5	»

Sumatra: 1 ♀ Bah Soemboe (east coast).

Acrida.

1758. *Gryllus Acrida* LINNÉ, Syst. Natur. Ed. X, p. 427.

1775. *Truxalis* (pt) FABRICIUS, Syst. Entom., p. 279.

1835. *Tryxalis* BRULLÉ, Hist. Nat. Ins. IX, p. 216.

Size long, from slender. Antennae relatively short, compressed, ensiform, with the basal joints flattened.

Head elongate, face strongly oblique. Frontal ridge in profile slightly prominent above the median ocellum, straight in the rest, shallowly sulcate, subobliterate near the clypeus.

Lateral facial carinae almost straight.

Fastigium of vertex very long, broad, the margins straight and parallel, the anterior margin broadly rounded; surface slightly concave, median carina indistinct.

Temporal foveolae small, triangular and inferior, subobsolete. Eyes prominent sideways, long oval; interocular distance less broad than the fastigium of vertex.

Cheeks with an oblique, low keel, running from the lower angle of the eye to the hind angle of the cheek.

Pronotum elongate, finely rugose and punctured; prozona somewhat longer than the metazona, sulci subobsolete; median keel well developed, linear; lateral keels in the prozona subparallel, in metazona slightly divergent and rounded, hind margin rectangular, hind angle about or less than 90° , pointed. Lateral lobes of pronotum much longer than high, with two incomplete, subparallel keels; lower margin nearly horizontal, anterior angle obtuse, rounded, posterior angle acute angulate.

Elytra and wings long, narrow and pointed. Elytra similar in both sexes, with the mediastinal and scapular areas not expanded, irregularly reticulated, opacous.

Mesosternal lobes about as long as broad, the inner margins subrounded, hind inner angles obtuse, rounded; their interspace longer than broad, feebly widened posteriorly ♂, or nearly parallel-sided ♀.

Metasternal lobes separated by a small (♂) or subquadrate (♀) interspace.

Hind femora very long, slender, with strong carinae, the kneelobes sharply pointed.

Hind tibiae sulcated below; inner and outer margins with a long row of about 30 spines; the upper interior spur shorter than the lower one. Hind tarsi short, the first joint as long as the two others together; claws short; arolium large.

Supra-analplate of the male triangular, apex broadly rounded, with an oval impression in the basal half. Cerci short, not extending beyond the supra-analplate, straight,

conical, obtuse. Subgenitalplate long, with the apex sharply pointed.

Cerci of the female very short, conical. Subgenitalplate long, about two times longer than broad, posterior margin with a round incision on both sides.

Valvae of the ovipositor very short, blunt.

Genotype: *Gryllus Acrida turrita* LINN.

Only represented by one species.

***Acrida turrita* LIN.**

1758. *Gryllus Acrida turritus* LINNÉ, Syst. Natur. Ed. X, p. 427.

1781. *Truxalis conicus* FABRICIUS, Spec. Ins. I, p. 352, No. 2.

1815. *Truxalis interruptus* THUNBERG, Mém. Acad. Petersb., p. 269.

1853. *Truxalis raflesii* BLANCHARD, Voyage Pôle Sud. Zool. IV, p. 366.

1870. *Truxalis scitula* WALKER, Cat. Derm. Salt. B.M. III, p. 496, No. 7.

General coloration uniformly green or brown or green from above and brown from beneath, sometimes variegated by reddish, brown or whitish bands, stripes or spots.

Lateral postocular fasciae when present, brown or whitish brown, sometimes obliterated on the pronotum, often obliterated in the metazona. Oblique keel of the cheeks brown or reddish brown, especially in the posterior part. Lateral keels of pronotum reddish brown, sometimes bordered from above by a dark brown stripe in the prozona and anterior part of metazona. Lateral lobes of pronotum sometimes with a reddish brown transverse band in the middle. Episternum of meso- and metathorax sometimes with a brown spot or band. Elytra uniformly green or brown or brown with a green longitudinal stripe in the middle, or with a dark brown longitudinal band in the middle, variegated with yellowish white spots or stripes. Wings hyalinous or faintly tinged with green. Elytra and wings surpassing the hind knees. Abdomen often red from above. Fig. 25.

	♂	♀
Length of body	30-46 mm.	52-75 mm.
» » pronotum	5-8 »	8-12 »
» » elytra	25-40 »	41-73 »
» » hind femora	21-28 »	29-42 »

A widely distributed species, ranging from S. Europe, Africa, Asia to Australia.

Sumatra: Padang, Fort de Kock, Gunung Pasaman, Tambang Sawah (Benkoelen), Lubuksikaping, Tandjunggadang, Baso (E. Jacobson), Singkep, Pladjoe, Bankulan, Silago, Boengamas, Palembang, Soeroel, Deli, Solok, Matur, Atjeh, Medan, Arnhemia.

Phlaeoba.

1860. *Phlaeoba* STÅL., Eugenie's Resa, Orth., p. 340.

Size small or medium, form slender or more robust. Antennae flattened, ensiform or more filiform, as long as head and pronotum together ♀ or longer ♂.

Head elongate. Face strongly oblique, rugosely punctured or with irregular subobliterate rugosities. Frontal ridge between the antennae raised, without any trace of an impression near ocellum, narrowly sulcate, divergent downwards, subobliterate near the clypeus ♀. Lateral facial carinae straight or slightly curved. Fastigium of vertex projecting considerable beyond the eye, the margins smooth, its surface slightly concave, with a distinct median carina that is continuing on the vertex. Temporal foveolae small, triangular and inferior, subobsolete. Eyes prominent, interocular distance less broad than the fastigium of vertex.

Pronotum compressed laterally, cylindrical; dorsum rugulose punctured; prozona longer as metazona, median keel distinct, lateral keels distinct, straight, subparallel; anterior margin truncate, posterior margin rounded. Lateral lobes rugulose, not much higher than long, or as long as high, with the lower margin obtusely angulate in the middle; ascendent anteriorly, anterior angle obtuse, posterior angle a little more than 90°.

Elytra and wings well developed, reaching as far as the

apex of adomen or longer, apex rounded or rounded-truncate.

Wings scarcely shorter than elytra. Mesosternal lobes transverse, broader than long, their interspace transverse or nearly so. Metasternal lobes separated by a subquadrate interspace. Lobes of the hind knee obtusely pointed. Hind tarsi short, the first joint as long as the two others together.

Supra-anal plate of the male triangular, with a basal oval impression; apex acute. Cercus straight, conical, reaching but little beyond the supra-analplate. Subgenital plate short, pointed or more obtuse.

Valvae of the ovipositor slightly curved but not dentate.

Genotype: *Gomphocerus (Phlaeoba) rusticus* STÅL.

Key to the species.

1. Antennae relatively long, in the ♂ much, in the ♀ less longer than head and pronotum together, the apical joint always whitish or yellowish-white. Fastigium of vertex long. Wings infumated towards the apex, generally bluish basally. Hind tibiae reddish-brown or bluish. Subgenital plate in the male short conical, with the apex more or less obtuse. Cerci short. **antennata** BR. v. W.

1.1. Antennae shorter, the apical joint unicolorous, never whitish. Fastigium of vertex short. Wings hyalinous or slightly infumated apically or bluish basally. Hind tibiae reddish brown. Subgenital plate in the male long, with the apex acute. Cerci long.

2. Antennae in the male ensiform, in the female distinct ensiform. Pronotum relatively long. Subgenital plate in the male acute, cercus relatively long. Inferior area of hind femora reddish-brown **unicolor** BOL.

2.2. Antennae in the male subensiform, nearly filiform, in the female ensiform. Pronotum short. Subgenital plate in the male long and pointed, cercus relatively short. Inferior area of hind femora red **rustica** STÅL.¹⁾

¹⁾ Till now I did not see any true *rustica* from Sumatra, but the two species (*unicolor* and *rustica*) have always been mingled up together. As I have now the occasion to study the type of *rustica* and other material from Java, it enabled me to distinguish these two species, especially where it is not impossible that *rustica* also occurs in Sumatra. As to

***Phlaeoba antennata* BR. v. W.**

1893. *Phlaeoba antennata* BRUNNER VON WATTENWYL, Ann. d. Mus. Civic. Ser. 2^a. Vol. XXII, p. 125.

1902, ? *Phlaeoba angustidorsis* BOLIVAR, Ann. Soc. Ent. France LXX, p. 590.

Antennae flattened and ensiform basally, in the male reaching to the middle of hind femora, in the female somewhat variabel in length, but always reaching the hind margin of pronotum. In the male the middle joints of antennae are elongate and slightly narrower than the apical ones. Fastigium of vertex long, somewhat shorter than the eye, its margins subparallel, rounded triangular apically, anterior angle slightly less than 90°. Median carina of vertex distinct. Pronotum narrow, relatively long, third sulcus distinctly behind the middle. Elytra and wings reaching as far as the hind knees or a little shorter. Subgenital plate in the male short conical, obtuse. Cerci relatively short and conical, straight or slightly curved, with the apex obtuse.

General coloration reddish brown, with black and often olive-green, variabel. Antennae reddish brown or blackish-brown, paler distally with the apical joint always yellowish or white. Head, except the vertex, in the male often dark olive-green or blackish, also the lateral lobes of pronotum and the sides of meso- and metathorax. Pronotum often with blackish stripes or spots. Elytra blackish brown or brown, with the anal area in the male greenish brown or yellowish brown. Wings infumated towards the apex, bluish basally. Anterior legs brown or olive-green; hind femora reddish brown or brown, area inferior of the same color, hind knees blackish or brown; hind tibiae brown or bluish-green; hind tarsi brown. Thorax and abdomen yellowish-brown from beneath. Fig. 26, 27.

	♂		♀
Length of body	18.5—25	mm.	29 — 32 mm.
» » antennae	10 — 13	»	10.8—12 »

the synonyms of *rustica*, I think that this species is conspecific with *Opsomala fumosa* SERV. (Hist. nat. d. Insectes. Orthopt. 1839, p. 593), but where I have no occasion to study the type of Serville, I am not able to solve this question.

	♂	♀
Length of pronotum	3.5— 5.2 mm.	5.5— 6.5 mm.
» » elytra	13 — 18 »	17 — 23 »
» » hind femora	12 — 16 »	16.5— 19 »

A widely distributed species ranging from Burma, Assam, Malay Peninsula, Sumatra to Cochinchina and Borneo.

Sumatra: Lubuksikaping, Anai kloof, Harau kloof, Baso, Padang Taarap, Fort de Kock, Tandjunggadang (E. JACOBSON), Boengamas, Silago, Soeroel, Solok, Simau, Tandjong Morawa-Serdang, Sibolga, Palembang, Padang. Medan, Soekadjad, Bah Lias, Pagar Marbou, Naga Kasiangan, Tandjong Merah, Sibolangit, Sinabong, Kota Tjane, Brastagi, Simpang Toba.

***Phlaeoba unicolor* BOL.**

1914. *Phlaeoba unicolor* BOLIVAR. Trab. d. Mus. Nac. d. Cienc. Nat. num. 20. Ser. zool. p. 91.

Antennae slightly ensiform in the male, distinctly so in the female; reaching beyond the hind margin of pronotum ♂ or nearly so ♀; gradually narrowed to the apex.

Fastigium of vertex short, about half as long as the eye, its margins subparallel or slightly convergent posteriorly, rounded triangular apically, anterior angle slightly less than 90°. Median carina of vertex distinct throughout or subobsolete posteriorly.

Pronotum short, third sulcus distinctly behind the middle. Elytra and wings reaching a little beyond the hind knees or somewhat shorter ♀.

Subgenital plate in the male distinctly longer than in *antennata*, with the apex acute. Cerci conical, apex pointed. General coloration brown or yellowish brown with blackish brown bands, stripes or spots.

Antennae brown, often blackened in the apical part. Apical joint of the same color as the other joints. Head brown, sometimes with a dark postocular band that is continuing on the upper part of the lateral lobes of the pronotum. Elytra brown, sometimes with a dark stripe or band along the radial vein. Alae hyalinous, slightly infumate apically. Anterior and median legs brown. Hind femora

brown, area inferior of the same color or more reddish brown. Hind knees blackish-brown; hind tibiae brown. Thorax and abdomen brown from beneath. Fig. 28, 29.

	♂	♀
Length of body	17.5 mm.	25 — 26 mm.
» » antennae	8	8 — 9 »
» » pronotum	3	5 — 5.5 »
» » elytra	14 — 16	16.5 — 21 »
» » hind femora	11	16 — 16.5 »

This species is only known from Sumatra and from Borneo.¹⁾

Sumatra: Tandjunggadang (E. JACOBSON), Tambang Sawah (Bengkulen) (WALCKE), Soeroel, Silago, Solok, Koetoer.

SUBFAM. IV. OEDIPODINAE.

Key to the genera.

1. Median keel of pronotum cut by two sulci
. . . . **Trilophidia** STÅL.
- 1.1. Median keel of pronotum complete or only cut by one sulcus.
2. Apical part of elytra with regular oblique (featherlike) reticulation **Pternoscirta** SAUSS.
- 2.2. Veinlets in the apical part of elytra more or less perpendicular to the veins.
3. Pronotum with strong crest or acutely tectiforme. Wings with a broad black transverse band
. . . . **Gastrimargus** SAUSS.
- 3.3. Mediankeel of pronotum normal, low. Wings without transverse band.
4. Inner spurs of posterior tibiae greatly unequal, the lower one much longer than the other, abruptly hooked at the apex, very acute. Basal half of elytra opaque
. . . . **Heteropternis** STÅL.
- 4.4. Inner spurs of posterior tibiae not greatly unequal, normal. Elytra subhyaline **Locusta** L.

¹⁾ BOLIVAR describes from Borneo only a variety (var. *Waterstradti*). This variety is unknown to me. It is not impossible that this variety, that is based on two specimens, by further study of more material is stated to be a new species.

Trilophidia.

1873. *Trilophidia* STÅL., Recens. Orth. I, pp. 117, 131.

Size small or medium, body moderately robust or more slender. Legs and under surface pilose. Antennae filiform, slightly thickened towards the apex, reaching the hind margin of the pronotum (♀) or somewhat longer (♂). Head rugulose and tuberculate: frontal ridge slightly reclinate, moderately convex in profile, not quite separated from the fastigium, but with a small median keel just at the apex of the fastigium of vertex; margins subparallel, somewhat constricted near the median ocellum and slightly dilatated towards the clypeus or parallel; its surface sulcate or more rugosely-foveolate. Lateral facial keels well developed, sub-angulate. Cheeks with some incomplete rugulose keels.



FIG. 31

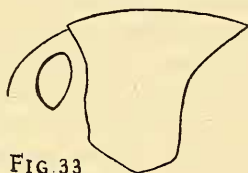


FIG. 33

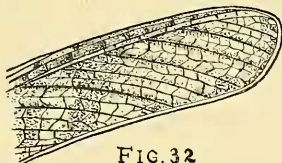


FIG. 32

Fig. 31. *Trilophidia cristella* STÅL. ♂.

Fig. 32. *Pternoscirta caliginosa* DE HAAN. Apical half of elytra

Fig. 33. *Gastrimargus marmoratus* THUNB.
var. *transversus* THUNB.

Fastigium of vertex moderately sloping, forming with the frontal ridge a rounded angle, not separated from the frontal ridge by a distinct carina; somewhat longer as broad, pyriform in shape, not much narrowed in front; its surface slightly concave with or without a feeble indication of a median keel, posteriorly with a row of 2—4 small but distinct tubercles, nearly separating it from the very vertex;

occiput sloping backwards with a trace of median keel or some small rugosities.

Temporal foveolae distinct, rounded triangular, broad. Pronotum short, constricted anteriorly; median carina well developed, in the prozona raised and cut by two sulci; metazona distinctly longer than prozona. Prozona callously rugose and tuberculate. Lateral keels only distinct in the metazona, somewhat divergent posteriorly or subparallel, sometimes only indicated by a row of tubercels; hind margin obtusely angulated.

Lateral lobes of pronotum much deeper than long, punctured or more rugulose; front margin straight or sub-sinuate, front angle obtuse or rounded, lower margin straight and oblique backwards to beyond the middle, then broadly rounded together with the hind angle or hind angle obtusely rounded.

Sternum punctured; mesosternal lobes small and transverse, their interspace transverse and distinctly broader than the lobes; metasternal interspace quadrate or longer than broad.

Elytra extending far beyond the hind knees; narrow, apex rounded, almost entirely hyaline, except the basal fourth part, where they are subcoriaceous. Mediastinal area reaching beyond the middle of elytra, with a small basal dilatation, scapular area reaching the middle of elytra, with regular transverse veinlets, coriaceous basally, discoidal area with a well-developed false vein in the middle, interulnar area narrower than discoidal; irregularly venulated.

Wings hyaline, scarcely shorter than elytra.

Hind femora rather thick, with upper keel not denticulate; knee lobes rounded. Hind tibiae rounded, feebly incurved, armed with 8 outer and 9 inner spines, without outer apical spine; the inner apical spurs are longer than the outer ones. Hind tarsi short, third joint not so long as two basal joints together, second subequal to one third of the first, pulvilli short.

Male supra-analplate triangular, apex rounded, with a median sulcus from the base to the apex. Cerci slightly longer than supra-analplate, cylindrical and gradually narrowing apically, with obtuse tips. Subgenital plate short, obtuse.

Supra-anal plate of female triangular, longer than wide, with apex widely rotundate, cerci short, compressed, valves of ovipositor short, obtuse; subgenital plate elongate, posterior margin rounded.

Genotype: *Oedipoda cristella* Stål.

Key to the species.

1. Length of body 16–21 mm. Median carina of pronotum deeply cut by the two sulci. The prozona near the anterior margin on each side, provided with a well developed tubercle or carina (♂, ♀). Hind margin of pronotum rectangular, hind angle about 90° (♀). . . . **annulata** THUNB.

1.1. Length of body 12–16 mm. Median carina of pronotum less deeply cut by the two sulci. The prozona near the anterior margin on each side, provided with a small tubercle or carina (♀) or without tubercles (♂). Hind margin of pronotum acutangular, hind angle generally less than 90° **cristella** Stål.

Trilophidia annulata THUNB.

1815. *Gryllus annulatus* THUNBERG, Mém. Acad. Petersb. V, p. 234; IX, pp. 395, 409, n. 33 (1824).

1815. *Gryllus bidens* THUNBERG, Ibid. p. 235; pp. 398, 422, n. 82 (1824).

1842. *Acridium (Oedipoda) vulneratum* DE HAAN, Verhand. Orthopt., pp. 161, 162, n. 31, pl. 21, fig. 13.

1870. *Epacromia turpis* WALKER, Cat. Derm. Salt. B. M. IV, p. 775.

1884. *Trilophidia annulata* var. *ceylonica* SAUSSURE, Mém. Soc. Genève, Prod. Oedipod. p. 158.

Size medium, body moderately robust. Prozona near the anterior margin on each side with one or two distinct and well developed diagonal tubercles or carinae. Median keel of pronotum deeply cut by the two sulci. Hind margin of pronotum rectangular, hind angle about 90° (♂) or more than 90° (♀). Elytra and wings long, extending well beyond the hind knees.

General coloration brown with black or greyish markings.

Antennae brown, more or less annulated with black, darker apically. Head brown with black dots, often with a yellowish band, running from the lower part of the front, along the cheeks and continuing on the lower part of the lateral lobes of pronotum. This yellow band is not unicolorous, but often speckled with brown spots. Vertex brown with black spots or stripes, often with a black stripe from the fastigium to the anterior margin of pronotum.

Pronotum brown or more yellowish brown with a dark fascia along the median keel or round spots on the disc, posterior margin yellowish brown with a row of dark spots. Elytra brown with dark spots, especially near the anterior margin; anterior and posterior margin subparallel, apex rounded.

Wings with the disc pale-yellow or hyaline, the rest infumate throughout. Hind femora brown, with 2—3 velvety black spots above; their outer face with blackish spots or a row of black dots along the lower keel; inner face black with two yellowish fasciae, knees blackish-brown.

Hind tibiae brown, with an ivory-white or yellowish basal and post basal ring in the middle, spines and apical spurs yellowish with black tips. Abdomen yellowish-brown. Fig. 30.

	♂	♀
Length of body	16 —17 mm.	19 —21 mm.
» » pronotum	3.5—4 »	3.5—4 »
» » elytra	16 —18 »	20 —22 »
» » hind femora	9 —10 »	9 —11 »

This species is ranging from Africa, Ceylon, India, Yunnan, Sumatra, Java, Philippines to China and Japan.

Sumatra: Padang, Anai Kloof, Fort de Kock, Lubuksikaping, Tandjunggadang, Gunung Singgalang. (E. JACOBSON), Matur, Solok, Soeroel, Silaga, Deli, Moena Laboe, Pladjoe, Tandjong Morawa Serang, Siboga, Medan, Bandar Baroe, Kota Tjane.

Trilophidia cristella STÅL.

1860. *Oedipoda cristella* STÅL. Eugen. Fregat. Resa. Orth. p. 344, no. 105.

Very similar to *annulata* THUNB Size small, body more

slender. Prozona near the anterior margin on each side with a small diagonal carina (♀) that is missing or subobliterate in the male. Median keel of pronotum cut by the two sulci, but distinctly less than in *annulata*. Hind margin of pronotum acutangular, hind angle less than 90° (♂) or nearly 90° (♀). Elytra and wings long but relatively shorter than in *annulata*.

General coloration as in *annulata*. Elytra more uniformly coloured, mostly without dark spots. Wings hyaline, apically infumated. Hind tibiae with the yellowish postbasal ring often subobsolete. Fig. 31.

	♂	♀
Length of body	12 mm.	13 — 16 mm.
» » pronotum	2.5 »	3 — 3 »
» » elytra	12.5 »	13.5 — 13 »
» » hind femora	— »	8 — 8 »

This species is known from Sumatra, Java, China, Borneo and the Philippines.

Sumatra: Fort de Kock, Padang (E. JACOBSON).

Pternoscirta.

1884. *Pternoscirta* SAUSSURE. Mém. Soc. Genève XXXVIII, pp. 52, 127, XXX 1888, p. 18.

Size medium, body rather robustly built, legs and under surface pilose. Antennae filiform, joints elongate, longer than head and pronotum together. Head slightly rugulose and tuberculate; frontal ridge slightly reclinate, moderately convex in profile, narrow at the fastigium, gradually widened between the antennae, scarcely narrowed below the ocellum, feebly widened near the clypeus; its surface rugosely-foveolate, punctured above the ocellum, impressed at and below the latter.

Fastigium of vertex moderately sloping, forming with the frontal ridge a distinct, though rounded, obtuse angle, about as long as it is broad, pyriform in shape, not much narrowed in front; its surface slightly concave, with a pair of small transverse tubercles and a few practically obsolete minutely round tubercles elsewhere; an elongate tubercle at the back of vertex. Temporal foveolae short, acutely triangular.

Pronotum short and thick, callously rugose and tuberculate, moderately constricted in the prozona; two short, oblique, sharp lateral ridges at the front margin which is more or less rounded, somewhat projecting; median keel well raised, straight in profile, slightly lamelliform in the prozona; first sulcus obliterate at the sides of the median keel which is notched opposite it; typical sulcus placed before the middle, distinct cutting the keel; metazona as broad as long or distinctly broader than long, shallowly and broadly impressed sideways of the keel in the front part, with irregular short longitudinal rugosities and round tubercles; hind angle very obtuse, broadly rounded, its margins straight or incurved. Lateral lobes of pronotum much deeper than long, rugulose and punctured, especially in metazona; front margin somewhat arcuate; front angle very obtuse; lower margin straight and oblique backwards to beyond the middle, then broadly rounded together with the hind angle.

Sternum with small, scattered punctures; mesosternal lobes transverse, their interspace slightly narrower than one of the lobes; metasternal interspace about twice as broad as long. Elytra extending scarcely beyond the hind knees or longer, subcoriaceous in the basal half, hyaline in the rest, stigmatic arch in the middle; intercalate vein very distinct; apical half with regular oblique (featherlike) reticulation. Wings often coloured at the base, hyaline, infumated apically, without central black bands. Hind femora scarcely denticulate on the upper margin. Hind tibiae relatively thick; inner spurs longer than the outer spurs, about equal in length.

Supra-analplate in the male triangular, apex rounded. Cerci straight, cylindrical, apex obtuse. Subgenitalplate short, obtusely conical. Supra-analplate in the female triangular, apex obtuse. Cerci short, conical, apex obtuse. Valves of ovipositor smooth. Subgenitalplate much longer than broad, posterior margin rounded or truncate. Fig. 32.

Genotype: *Pternoscirta Humbertiana* SAUSS.

Only represented by one species.

Pternoscirta caliginosa DE HAAN.

1842. *Acridium (Oedipoda) caliginosum* DE HAAN. Bijdragen Orth. Verhandel. Nat. Geschied. Ned. Overz. Bezittingen, p. 161, pl. 21, fig. 11.

General coloration dark brown or reddish, with reddish spots and dots. Elytra brown, with a pale pre-radial spot in the basal third, and a pale incomplete transverse band in the middle, apical part tessellate with hyaline; anterior and hind margin with brown spots. Wings yellowish basally, infumated in front and apically. Hind femora brown, their outer face with dark dots or slightly indicated bands, blackish brown from above (with bronze reflex?), inner face black and lower sulcus yellow with two black fasciae; knees blackish.

Hind tibiae blue with a yellow prae-genicular ring. Apical spurs blackish-brown. Abdomen brown.

	♂	♀
Length of body	21 - 29 mm.	27 - 33 mm.
» » pronotum	4.5 »	5 »
» » elytra	22.5 - 27 »	28 - 32 »
» » hind femora	13 - 14 »	16 - 18 »

This species is known from India, Malacca, Java and Sumatra.

Sumatra: Solok.

Gastrimargus.

1884. *Gastrimargus* SAUSSURE, Mém. Soc. Genève, XXVIII, pp. 109, 110; *ibid.* XXX, 1888, p. 37.

Size large, form robust. Antennae filiform reaching not or a little beyond the base of hind femora. Head thick, compressed laterally. Frontal ridge convex in profile, scarcely narrowed at the fastigium, not or feebly dilated at the clypeus, shallowly impressed at the ocellum, coarsely, but not densely, punctured. Fastigium of vertex sloping and forming a broad arch with the frontal ridge, longer than broad or as long as broad, narrowed in front, without or with median carinula; foveolae temporales indistinct. Lateral facial keels rounded.

Pronotum compressed laterally and somewhat constricted in prozona; median keel strongly raised, sharp, transverse

sulci indistinct in prozona, third sulcus often distinct and cutting the median keel; front angle obtuse or acute, hind angle acute, lateral keels absent; lateral lobes distinctly shorter than high, rugosely punctured, front margin rounded, front angle obtuse, lower margin straight and oblique backwards to beyond the middle, hind angle more or less rectangular. Sternum with scattered punctures; mesosternal lobes transverse, their interspace narrower than one of the lobes; metasternal interspace broad, transverse.

Elytra extending beyond the apex of abdomen, subcoriaceous in the basal half, hyaline in the rest; stigmatic arch a little before the middle; costal area feebly expanded basally, gradually narrowing apically and not reaching the apical third of elytra; scapular area reaching the base of apical third, coriaceous basally with transverse veinlets in the apical half; discoidal area nearly parallel-sided, with well-developed intercalate vein, anterior discoidal area smaller than the posterior one; interulnar area narrower than discoidal, irregularly venulated, without distinct false vein; all areas of the apical half of elytra with transverse veinlets forming elongate cellules.

Wings hyaline, scarcely shorter than elytra, with or without dark transverse band. Hind femora robust, with the upper keel denticulate, especially in the middle. Hind tibiae feebly incurved, armed with 13--14 inner spines and 13 outer spines, without outer apical spine; the inner apical spurs are longer than the outer ones. Hind tarsi short; the first joint as long as the two others together. Supra-analplate of the male triangular with the margins more or less rounded, apex rounded, but little longer than its basal width, often with a shallow oblique carina in the middle. Cerci slightly longer than supra-analplate, cylindrical, apex obtuse; subgenitalplate short, obtusely conical. Supra-analplate of female long, triangular, apex rounded, with a median sulcus in its basal half. Cerci short, conical, apex obtuse. Valves of ovipositor short, obtuse.

Genotype: *Gastrimargus verticalis* SAUSS.

Only represented by one species.

Gastrimargus marmoratus THUNB.

1815. *Gryllus marmoratus* THUNB. Mém. Acad. Pétersb. V, p. 232; *ibid.* IX, 1824, p. 410, tab. 14, fig. 3.

1813. *Gryllus Locusta flavus* (nec. Lin.) STOLL., Spectres, Saut. p. 25, pl. 11b, fig. 41.

1815. *Gryllus transversus* THUNB. Mém. Acad. St. Pétersb. V, p. 233, var. α und β .

1815. *Gryllus virescens* THUNB. *Ibid.* p. 245.

1815. *Gryllus assimilis* THUNB. *Ibid.* p. 246.

1838. *Oedipoda citrina* BURM. Handb. d. Entom. 2:2, p. 645, no. 20.

1840. *Locusta flava* (nec. Linn.) DUNC. Introd. Ent. p. 258, pl. 16, fig. 2¹).

General coloration brown, yellowish-brown or green variegated with black spots and bands. Antennae brown or yellowish-brown. Head brown or green; a black spot beneath each eye near the lateral facial keels, near the clypeus and often on the cheeks with some brown bands or stripes, fastigium of vertex reddish brown or green, vertex with some brownish stripes, behind each eye a pale stripe, bordered above and below with blackish brown, often continuous on the pronotum.

Pronotum green, or brown or yellowish-brown, median keel generally bordered with brown, disc of pronotum with small blackish brown spots and stripes, often with a blackish stripe on each side, running from the anterior margin backwards to nearly the posterior margin, mostly interrupted by a pale stripe in the prozona; sometimes dissolved in a row of smaller stripes or bands. Lateral lobes brown or green, with small blackish brown spots, or with a yellowish-brown oblique band in the upper part, and a dark brownish spot near the anterior margin beneath the anterior part of this oblique band; often with a yellowish stripe near the middle of the posterior margin.

Elytra brown or green; basal half brown, without or with a more or less broad transverse hyaline band and a pair of small hyaline spots, apical half almost entirely hyaline

¹) For the further synonymy see SJÖSTEDT (76, p. 33, 34).

with a pale transverse band and some brownish spots; area analis brown or green, generally without spots. Wings bright



Fig. 34. *Gastrimargus marmoratus* THUNB.
var. transversus THUNB.

sulphur-yellow basally, with a broad blackish band, running arcuately from the anterior margin to the posterior margin, beyond this, the wing is hyalinous with the extreme tip more or less blackish.

Hind femora brown or yellowish brown, area supera often green with some black dots along the upper and lower carinula of outer and inner side; knee brownish. Hind tibiae reddish, paler basally, sometimes with an indication of a yellowish ring. Hind tarsi brown or reddish-brown. Sternum and abdomen yellowish, with reddish brown spots on the sternum, abdominal segments annulated with reddish brown at their posterior margin.

	♂	♀
Length of body	23--28 mm.	35--45 mm.
» » pronotum	5—8 »	9--12 »
» » elytra	23--29 »	37--43 »
» » hind femora	14--19 »	23--30 »
» » hind tibiae	13--17 »	21--28 »

This species is known from Asia and Africa (Cape) and occurs in some subspecies.

Key to the subspecies.

1. Median keel of pronotum strongly raised, in profile distinctly arcuate.

2. Pronotum yellowish brown, from above — as for the rest — with dark spots more or less variegated

. . . . **marmoratus** THUNB.

2.2. Pronotum yellowish brown or green, from above with a dark stripe on both sides.

3. Elytra in the basal half, with a transverse hyaline band, running through the anterior and discoidal areas.

. . . . **var. transversa** THUNB.

3.3 Elytra in the basal half without transverse hyaline band **var. grandis** SAUSS.

1.1. Median keel of pronotum in profile nearly straight.

. . . . **forma rectinotum** SJÖST.

(of the type-form as well as of the varieties).

Type form: **Marmoratus** THUNB. var. α .

1888. *Oedaleus* (*Gastrimargus*) *marmoratus* var. *sundaicus* SAUSS. Mém. Soc. Genève XXX (1), p. 39, no. 3.

The type form is characterised by the yellowish-brown pronotum, variegated with dark spots throughout, without distinct dark stripe on the disc. This form seems to be the most rare of this very common insect.

Sumatra: Tjinta Radja, Kota Tjane (MjöBERG), Pankulan, Balai (MOSZKOWSKI), Anaikloof (E. JACOBSON), Siboga, Balighe.

Var. *transversa* THUNB.

This variety is characterised by the dark blackish stripes

on the pronotum and the transverse hyaline band in the basal half of elytra. The blackish stripes on the pronotum are variable, sometimes running from the anterior margin to the posterior one, often shorter and not reaching the posterior margin. The transverse hyaline band in the basal half of elytra is also variable and is often only indicated by a small hyaline spot in the costal area. There are many transitional forms between the fully developed transverse band and the small spot. Fig. 33.

Sumatra: Solok (P. O. STOLZ), Tandjunggadang, Fort de Kock (E. JACOBSON), Tandjong Merah (J. B. CORPORAAL), Deli, Muna Labu.

Var. *grandis* SAUSSURE.

This variety differs from *transversa* only in the absence of the hyaline transverse band in the basal half of elytra.

Sumatra: Solok, Fort de Kock (E. JACOBSON), Silago.

***Heteropternis*.**

1873. *Heteropternis* STÅL., Recens. Orth. I, pp. 117, 128.

Size medium, form slender. Antennae filiform, slightly thickened towards the apex, reaching the hind margin of pronotum or somewhat longer. Head rugulosely punctate. Frontal ridge convex in profile and slightly reclinate, distinctly narrowed at the fastigium, gradually widened towards the clypeus; its surface rugosely-foveolate, impressed above and at the ocellum. Fastigium of vertex sloping and forming a somewhat angulated arch with the frontal ridge, broader than long, narrowed in front, its surface concave, without median keel, separated from the vertex by an incomplete keel or rugosity; foveolae temporales small, indistinct, acutely triangular. Lateral facial carinae angulately rounded. Pronotum short, constricted in the prozona, rugosely punctured, median keel well developed, sharp; transverse sulci indistinct in prozona, third sulcus distinct, though very fine, both on the disc and on the lobes, cutting the median keel before the middle; lateral keels absent or only perceptible in the metazona as a short oblique rugosity; front angle obtuse, hind angle obtusely angulated with the sides

straight; lateral lobes distinctly shorter than high, rugosely punctured, especially in the hinder part, front margin slightly rounded, front angle obtuse, lower margin straight and oblique backwards to beyond the middle, hind angle more or less rectangular or rounded.

Sternum with scattered punctures; mesosternal lobes transverse, their interspace as broad as or broader than one of the lobes; metasternal interspace transverse.

Elytra extending beyond the hind knees, subcoriaceous in the basal third, hyaline in the rest, stigmatic arch about in the middle; costal area feebly expanded basally, gradually narrowing apically and reaching the middle of elytra; scapular area reaching the apical third, coriaceous basally with transverse veinlets in the apical half; discoidal area densely venulated with transverse veinlets, except at the base where they are more irregular, intercalate vein well developed, anterior discoidal area distinctly larger than the posterior one; interulnar area narrower than discoidal, irregular venulated or with sparsely transverse veinlets, with more or less distinct false vein; all areas of the apical half of elytra with transverse veinlets forming elongate cellules.

Wings hyaline, coloured basally, without dark transverse band. Hind femora robust, with the upper keel scarcely denticulate. Hind tibiae nearly straight, armed with 10 inner spines and 9 outer spines, without outer apical spine; the inner apical spurs longer than the outer ones, especially the lower inner which is about twice as long as the outer one; all spurs are hooked at their apex, but the lower inner is more abruptly hooked at apex. Hind tarsi short, the first joint subequal to the two others together.

Supra-analplate of the male triangular with the sides slightly rounded and the apex obtuse; in the basal half a small shallow median sulcus. Cerci cylindrical, apex obtuse and slightly curved, slightly longer than the supra-analplate. Subgenitalplate short, obtusely conical. Supra-analplate of female triangular, narrow, apex subacute, with a shallow impression in the basal half. Cerci short, obtusely conical.

Valves of ovipositor short, obtuse. Subgenitalplate longer as broad, posterior margin rounded.

Genotype: *Heteropternis pyrrhoscelis* STÅL.

Only represented by one species.

***Heteropternis respondens* WALKER.**

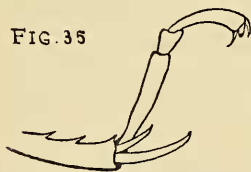
1859. *Acridium respondens* WALKER, Ann. Mag. Nat. Hist. (3) IV, p. 223.

1870. ? *Epacromia varia* WALKER, Cat. Derm. Salt. B. M. IV, p. 774, no. 16. Idem V, Suppl. p. 85, 1871¹⁾.

1873. *Heteropternis pyrrhoscelis* STÅL, Rec. Orth. I, p. 128.

General coloration brown, with reddish-brown and yellowish markings. Antennae yellowish brown, darker apically. Head brown with irregular blackish-brown spots, dots or stripes. Pronotum brown or greenish brown or reddish, with pale reddish brown dots on each side of the disc, or metazona and posterior part of lateral lobes, reddish or yellowish-

FIG. 35



Heteropternis respondens
WALKER.

Hind tibia and tarsus.



Fig. 36. *Heteropternis respondens*
WALK. ♀.

brown or greenish, very variabel. The lateral lobes of pronotum in the anterior part with two shining dots. Elytra brown with a pale, more or less triangular spot in the basal third and some little spots more; apical part tessellate with hyaline.

Wings reddish or yellowish basally with the apex slightly infumated. Hind femora yellowish brown on their outer face with irregular rows of dark spots along the keels; with

¹⁾ See Morgan Hebard (50, p. 216).

2—3 irregular black spots above; inner face and lower sulcus reddish, sometimes with dark fasciae or spots. Knees with brown and black variegated. Hind tibiae red, with a small yellow ring basally, the extreme tip infuscated, spines reddish with black tips, spurs yellowish-brown with black tips. Sternum and abdomen yellowish, margins of lobes and sternits darker. Fig. 35, 36.

	♂	♀
Length of body	17—19 mm.	20—22 mm.
» » pronotum	3—4 »	4—4.5 »
» » elytra	17—19 »	22—23 »
» » hind femora	10—11 »	12.5—13 »

This widely distributed species is ranging from India through the whole Malaysian sub-region, China and Japan to Australia.

Sumatra: Anai-Kloof, Fort de Kock, Tandjunggadang, Padang (E. JACOBSON), Solok, Serdang, Surul, Buo, Rawas, Pladju, Medan, Arnhemia, Brastagi.

Locusta.

1758. *Locusta* LINNE, Syst. Nat. Ed. X, p. 431.

1853. *Pachytylus* FIEBER, Lotos III, p. 121.

Size large, form robust. Antennae filiform, slightly compressed dorso-ventrally. Frontal ridge in profile straight or feebly convex, impressed but not widened at the median ocellus, flat elsewhere, with the margins obtuse, disappearing just near the clypeus, coarsely or more finely, but not densely punctured. Fastigium of vertex slightly sloping, forming a widely rounded angle with the frontal ridge, flat or slightly concave, slightly longer than broad, with the margins raised and convex; median keel developed; the distance between the eyes distinctly less than twice as broad as the frontal ridge between the bases of the antennae. Eyes oval, with the fore margin almost straight.

Pronotum with the prozona constricted, sulci in the prozona feeble, the typical sulcus cutting the median keel about its middle; median keel moderately elevated; lateral lobes distinctly shorter than high, rugosely punctured with some

glittering places in the prozona, front margin rounded, front angle obtuseangulate, lower margin straight and oblique backwards to beyond a little behind the middle, hind angle obtuseangulate or more rounded.

Sternum pilose, densely punctured; mesosternal lobes only a little longer than broad, their inner angles rounded; mesosternal interspace transverse in the female, quadrate or slightly longer than broad in the male; metasternal interspace transverse. Elytra long, not less than five to six times as long as their maximal width; hind radial vein diverging from the middle radial only slightly and close to the bifurcation of the former; discoidal area much shorter than half the elytra; interulnar area about half as broad again as the discoidal area, rather densely areolated, with areolets more than three deep, without a regular false vein. Wings hyaline, scarcely shorter than elytra, without transverse band.

Hind femora robust, more than four times as long as their maximal width; their upper margin more or less distinctly serrate; upper carina of the externo-media area straight.

Hind tibiae feebly curved, armed with 12 inner spines and 12—13 outer spines, without outer apical spine; the inner apical spurs are longer than the outer ones.

Hind tarsi short; the first joint as long as the two others together. Supra-anal plate of the male triangular, its surface practically flat; cerci short, rounded, conical; subgenital plate with apex obtusely conical. Supra-anal plate of the female triangular with the apex obtuse; the basal half on each side with a lateral keel running to the middle of the supra-anal plate and there suddenly bent obliquely outwards, the apical half with a distinct median narrow sulcus running to the apex. Cerci short conical, subgenital plate with lateral margins straight, apex truncate; lower valves of ovipositor with basal part distinctly longer than broad, with an obtuse lateral tooth in the apical part.

Genotype: *Gryllus Locusta migratoria* L.

Only represented by one species.

Key to the Phases of *Locusta migratoria* L. ¹⁾

1. Pronotum distinctly compressed laterally, but feebly constricted before the middle; median keel high, tectiform, convex in profile; the fore margin angulately prominent; the hind angle acute. Hind femora (on the average) longer than half the elytra. Hind tibiae often red. Larvae of variable coloration, but never black and red (or black and yellow). Both larvae and adults occur singly or in very loose swarms **ph. danica** LIN.

1.1. Pronotum only feebly compressed laterally, but distinctly constricted before the middle; median keel low, neither tectiform, nor convex in profile; fore margin not prominent; hind angle not acute. Hind femora (on the average) shorter than half the elytra. Hind tibiae only exceptionally red. Larvae of a constant black and red (or black and yellow) coloration. Both larvae and adults occur in dense swarms.

2. Pronotum with the median keel straight in profile; hind margin rotundato-angulate....

. **ph. migratoria** LIN.

2.2. Pronotum with the median keel concave in profile; hind margin widely rounded....

. **ph. migratorioides** RCH. & FAIRM.

***Locusta migratoria* L. phase *danica* L.**

General coloration very variable, green, brown, black, yellow, with spots and markings. Antennae brown or pale brown. Front and sides of the head sulphur yellow. Mandibles at insertion yellow, dense black beneath the labrum. Vertex frequently brown. Pronotum dark with two broad longitudinal fuscous stripes on either side, lateral lobes sulphur yellow. Sides of meso- and metathorax varying from greyish yellow to yellow. Meso- and metasternum varying from dirty greyish white to greyish yellow. Elytra hyaline, sometimes suffused with yellow and with irregular small brown patches. Hind wings hyaline with black veins. Anterior legs yellow, orange red, brown. Hind femora yellow

¹⁾ I am much indebted to Mr. B. P. UVAROV for the permission to copy this key.

to orange red, with brown markings usually more strongly on the inside, knees dark brown to black. Hind tibiae yellow to red, sometimes pale or greenish, spines tipped with black.



FIG. 37a



FIG. 37b



FIG. 39a



FIG. 39b



FIG. 38a



FIG. 38b



FIG. 40

Fig. 37. *Locusta migratoria* L. *ph. danica* L. Pronotum after Uvarov. — Fig. 38. *Locusta migratoria* L. *ph. migratoria* L. Pronotum after Uvarov. — Fig. 39. *Locusta migratoria* *ph. migratorioides* R. & F. Pronotum after Uvarov. — Fig. 40. *Aularches miliaris* L. ♀ Meso- and metasternum.

Hind tarsi yellow to red. This description does not cover all the variations of this very variable species. (Fig. 37).

	♂	♀
Length of body	32—44 mm.	44—51 mm.
„ „ pronotum	7—10 „	9—11 „
„ „ elytra	37—45 „	42—52 „
„ „ hind femora	16—20 „	23—27 „

This widely distributed species is ranging from Europe, Africa, Asia to Australia i. e. throughout the whole of the Eastern hemisphere except the coldest regions beyond 60° northern and southern latitude, very high mountains and vast waterless deserts.

Sumatra: Pladju, Medan.

***Locusta migratoria* L. phase *migratoria* L.**

General coloration the same as in phase *danica*, also very variable, differing from the latter by the characters as indicated in the key. The colour variability is far less than in *danica* and it is noteworthy that the hind tibiae in *migratoria* are never red, save quite exceptionally. (Fig. 38).

	♂	♀
Length of body	35—50 mm.	42—55 mm.
„ „ pronotum	8,5—10 „	9—11 „
„ „ elytra	42—54 „	46—56 „
„ „ hind femora	16—21 „	18—23 „

This species has the same distribution as phase *danica*.

Sumatra: I never saw a true specimen of this phase from Sumatra, though it is not impossible that it may be found there.

***Locusta migratoria* L. phase *migratorioides* RCH. & FRM.**

General coloration the same as in the two other phases. Differing principally by the characters as given in the key. (Fig. 39).

	♂	♀
Length of body	47 mm.	43 mm.
„ „ pronotum	8 „	8 „
„ „ elytra	51 „	44 „
„ „ hind femora	23 „	22 „

The distribution of this species is not so extensive as that of the two other phases, but occupies the greater part of the latter, with the exception of the Palaearctic region. It is a subtropical or tropical form.

Sumatra: I never saw a specimen of this phase from Sumatra, though it is very probably that it must occur in Sumatra also.

SUBFAM. V. PYRGOMORPHINAE.

Key to the genera.

1. Metasternal foveolae small and broadly separated
Metasternal interspace transverse.
2. Mesosternal interspace transverse, widened posteriorly.
Pronotum strongly tuberculate....

Sect. *Taphronotae* . . ***Aularches* STÅL.**

- 2.2. Mesosternal interspace quadrate or longer than broad, the inner margins of mesosternal lobes parallel or subparallel or narrowing posteriorly.

3. Hind tibiae with the upper margins sharp. Elytra and wings with apex very acute....

Sect. *Atractomorphae* . . ***Atractomorpha* SAUSS.**

3.3. Hind tibiae rounded. Elytra and wings with apex not acute.

4. Anterior and posterior margin of elytra subparallel: elytra reaching far beyond the hind knees, anterior margin sinuate at the base. Antennae slightly ensiform....

Sect. *Desmopterae* . . . **Desmoptera** BOL.

4.4. Anterior and posterior margin of elytra gradually narrowed to the apex; elytra not reaching beyond the hind knees. Antennae filiform....

Sect. *Tagastae* . . . **Tagasta** BOL.

1.1. Metasternal foveolae large, contiguous or closely approximated. Metasternal lobes contiguous or only separated by a small interspace.

2. Body cylindrical, normal. Elytra and wings short not reaching beyond the apex of the abdomen....

Sect. *Orthacres* . . . **Verdulia** BOL.

2.2. Body strongly compressed laterally. Elytra and wings well developed and broad. Sect *Systellae*.

3. Fastigium of vertex parabolical. Elytra very broad, posterior angle rounded. **Systella** WESTW.

3.3. Fastigium of vertex rounded-triangular, Elytra less broad and relatively longer, posterior angle straight.

. . . . **Trigonopteryx** CHARP.

Aularches.

1873. *Aularches* STÅL., Oefv. Vet. Akad. Förh. XXX, (4) p. 51.

Size large, form robust. Antennae filiform, all joints elongate, reaching as far as the base of the hind femora. Head large, thick, smooth. Face in profile slightly reclinate, strongly prominent between the antennae; frontal ridge strongly raised between antennae, deeply sulcate with the margins subparallel or slightly divergent downwards, below the ocellum totally obliterated.

Lateral facial keels only indicated near the clypeus or angulately bent below the eyes and slightly divergent towards the clypeus. Fastigium of vertex very short, in profile shorter than an eye, triangular with the margins slightly concave; its surface convex, forming a straight

angle with frontal carina, seen from above it is broader than long, with apex circular, intersected by deep and narrow median sulcus, separated from the vertex by a semicircular not sharply defined impression, its level distinctly lower than occiput.

Vertex in profile convex with or without a trace of a median keel. Eyes small, strongly prominent sideways, almost round. Pronotum strongly tuberculate above and in the upper part of lateral lobes; anterior margin callously incrassate, prozona above with two great irregular humps near the anterior margin and some littler ones on each side, mesozona with two transverse rows of 3—4 irregular, more or less conical tubercles, metazona strongly rugose and tuberculate especially on the lateral keels and posterior margin; transverse sulci in the prozona more or less indicated by the grooves between the tubercles, third sulcus distinct, placed about the middle; median carina shallowly indicated in prozona, distinct in metazona; hind margin rounded; lateral keels indistinct. Lateral lobes of pronotum distinctly longer than high, its surface deeply cut by the transverse sulci, rugulose and tuberculate in the upper anterior part and rugulosely punctured in the metazona; anterior and posterior margin callously incrassate, inferior margin incrassate and angulately bent downwards in the middle; anterior and posterior angle obtuse.

Elytra and wings well developed and reaching beyond the apex of abdomen. Elytra broad, anterior- and posterior margin nearly parallel, apex broadly rounded. Wings fully developed, coloured. Prosternum with a short, sharp, conical spine on its fore margin. Sternum with the fore margin feebly convex and marginated; mesosternal lobes distinctly longer than wide, their interspace transverse, widened posteriorly. Metasternal foveolae small and broadly separated. Metasternal interspace transverse. Abdomen from above with a row of low tubercles near the posterior margin of each tergite, except the apical tergites. Fore and middle femora thickened.

Hind femora relatively small and slender, not reaching the apex of abdomen, upper keel smooth, basally with a small lobe, externo-median area with radiating ridges less

distinct, kneelobes obtuse. Hind tibiae distinctly curved, the apical third rounded, sulcate below (i. e. between the two rows of spines), armed with 5—6 outer and 8 inner spines, without outer apical spine. Supra-analplate of the male short, triangular, apex obtusely pointed, with a median keel from the base to the apex. Cerci short, conical, apex obtuse. Subgenital-plate short, conical, with the apex obtuse.

Supra-analplate of the female triangular, apex obtuse. Cerci very short, triangular, apex obtuse. Valvae of ovipositor robust, sinuated, apex acute. Subgenital-plate slightly longer than broad, its hind margin with an triangular projection in the middle.

Genotype: *Gryllus (Locusta) miliaris* LIN.

Only represented by one species.

Aularches miliaris LIN.

1758. *Gryllus (Locusta) miliaris* LINNAEUS, Syst. Nat. Ed. X, I, p. 432, *ibid.* Mus. Lud. Ulric. 1764, p. 142.

1773. *Acrydium verrucosum* DE GEER, Mém. Ins. III, p. 486, pl. XL, fig. 6.

1773. *Gryllus (Locusta) punctatus* DRURY, Ill. Exot. Ent. II, pl. XLI, fig. 4.

1793. *Gryllus scabiosae* FABRICIUS, Ent. Syst. II, p. 51.

1813. *Gryllus (Locusta) scabiosus* STOLL, Spectres. Saut. p. 18, pl. 7b, fig. 24.

1813. *Gryllus (Locusta) conspersus* STOLL, op. cit. p. 40, pl. 22b, fig. 85.

General coloration black with yellow. Antennae blackish-brown. Head and pronotum shining black from above, with a broad yellow or white band running across the face, below the antennae and eyes, across the cheeks to the lower part of the lateral lobes of pronotum. Elytra reddish grey, brown or greenish blue, very densely venulated with yellow or greenish-yellow veins, with a variabel number of lange and small callous, bright yellow spots. Wings purplish brown, apex paler. Epimerum of metathorax with a yellow or white spot; sternum red or reddish brown; abdomen black, with the hind margins of segments broadly marginated with red. Last segment of abdomen and valves of ovipositor

red or reddish-brown. Legs brown or dark olive, sometimes with yellow spots. Hind femora black or dark olive or brown with small black spots on the kneelobes; hind tibiae black or brown.

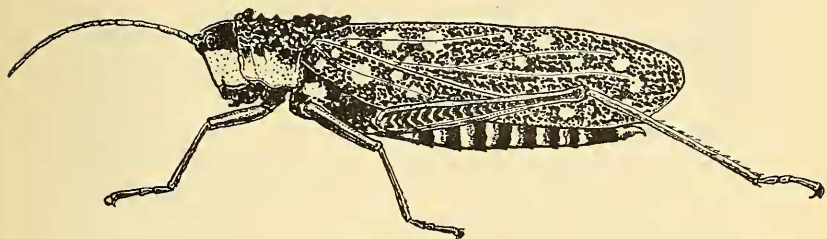


FIG. 41

Aularches miliaris L. var. *punctatus* DRURY.

This species is very variable in colour and the description above does not cover all the colour variations that are known. The typical *miliaris* has the head and pronotum yellowish or brown with some dark spots on the vertex and most tubercles on the pronotum, especially those near the anterior margin and on the metazona, black or blackish brown. The variety *punctatus* DRURY agrees with the description above having head from above and pronotum totally black.

The variety *scabiosae* FABR. has the head black from above, the pronotum yellow except the metazona that is more brown or black with the posterior margin yellow.

Between these varieties exist all kind of transitional forms.

Fig. 40, p. 72, fig. 41.

	♂	♀
Length of body	45—48 mm.	50—60 mm.
» » pronotum	10—11 »	13—17 »
» » clytra	39—45 »	42—52 »
» » hind femora	18—19 »	19—26 »

A widely distributed species ranging from Nepal and Sikkim to Ceylon, India, Cochinchina, Malayan States and Java.

Sumatra: Atjeh.

Atractomorpha.

1861. *Atractomorpha*, SAUSSURE, Ann. Soc. Entom. France, (4). I, p. 474.

1870. *Perena*, WALKER, Cat. Derm. Salt. B. M. III, p. 506.

Size medium, body elongate, slender, compressed. Antennae inserted at the apex of fastigium, short, reaching to about the middle of pronotum, flattened, more or less triquetral, in the female somewhat dilated basely.

Head conical, shorter or longer than the pronotum, strongly reclinate and elongate, rugosely tuberculate; front in profile slightly concave, scarcely protruding between antennae; frontal ridge between antennae compressed, deeply sulcate, above the antennae dilated, its margins subparallel, dilated near the ocellum; below the latter it is indicated as a more shallow sulcus with scarcely raised, obtuse margins and subobliterate near the clypeus.

Lateral facial keels developed, often indicated by an irregular row of tubercles, running from the base of antennae to the clypeus. Cheeks with an oblique row of granules.

Lateral ocelli placed between the eye and antennae; just above the eye.

Fastigium of vertex as long as or longer than an eye; its surface forming a sharp angle with frontal carina, seen from above longer than broad, margins subparallel or slightly convergent apically, with apex circular, a short shallow median sulcus in the anterior part, posteriorly transferring in a low median keel; vertex and occiput flat with a low median keel and irregular rows of tubercles more or less indicated.

Pronotum elongate, somewhat constricted in the prozona rugosely punctulata with dispersed round tubercles, anterior margin subemarginate, posterior margin obtusely angulated or rounded; median keel low, though distinct, lateral keels indicated by an irregular row of tubercles, somewhat divergent in the metazona or subobsolete; first transverse sulcus only faintly indicated on the disc not reaching any of the keels, second and third transverse sulcus distinct both on the disc and on the lobes, intersecting the keels, third transverse sulcus distinctly behind the middle; lateral lobes distinctly longer than high, almost perpendicular, lower margin ascendant with a row of round tubercles as continuation of the oblique row on the cheeks, anterior angle obtuse, posterior angle

acutely rounded and more or less produced behind, posterior margin arcuately excised.

Prosternum with anterior margin provided with an obliquely truncated tubercle in the middle or subemarginate and concave in front. Sternum rugosely punctate, fore margin feebly convex and marginated; mesosternal lobes subquadrate, their interspace quadrate, or longer than broad, narrowing posteriorly; metasternal foveolae small, broadly separated, their interspace transverse.

Elytra and wings long, reaching far behind the apex of hind femora, with the apex acutely pointed, costal area with a slight dilatation basally. Wings nearly as long as elytra, often coloured basally. Hind femora slender; area externo media broader than the area infero-externa, the latter distinctly divergent anteriorly. Hind tibiae nearly straight with the upper margins sharp, slightly widened apically, armed with 10—11 outer and 12 inner spines, with outer apical spine. Hind tarsi short, third joint about as long as two basal joints together. Abdomen somewhat compressed, with a slight median keel on the sternites.

Supra-anal-plate of the male elongate, triangular, apex obtuse, cerci short, not reaching the apex of anal-plate, triangular, distinctly incurved in apical third, with the apex acute. Subgenital-plate short, conical, with a median sulcus or impression basally.

Supra-anal-plate of the female triangular, apex acute. Cerci short, obtusely conical, apex slightly incurved, obtuse. Valves of ovipositor short, strongly recurved apically, with the margins subserrate, apex pointed. Subgenital-plate longer than broad, posteriorly with a deep slit-like incision on both sides of the middle, the part between these incisions elongate and reaching far beyond the posterior margin, triangular with the apex acute, lying between the bases of lower valvae.

Genotype: *Truxalis crenulatus* FABR.

Key to the species.¹⁾

1. Wings relatively narrow, not more than three times as broad as the elytra. Mesosternal interspace longer than broad, narrower posteriorly. Fastigium of vertex about twice as long as an eye **psittacina** DE HAAN.

1.1. Wings broader, mostly more than three times as broad as the elytra. Mesosternal interspace distinctly transverse. Fastigium of vertex smaller, in profile shorter as an eye.

2. Lateral lobes of pronotum broad. Elytra with the apex pointed, relatively short. Fastigium of vertex in profile shorter than an eye or nearly so.

3. Body very slender. Elytra long, reaching for about a third part beyond the hind knees . . . **consobrina** SAUSS.

3.3. Body less slender. Elytra shorter, reaching but for about a fourth part beyond the hind knees.

4. Prosternum with anterior margin with an obliquely truncated or rounded tubercle in the middle
. **crenulata** FABR.

4.4. Prosternum with anterior margin with a broad tubercle in the middle, emarginate apically
. **lanceolata** BOL.

2.2. Lateral lobes of pronotum less broad, more elongate. Elytra very long. Fastigium of vertex somewhat longer, in profile about as long as an eye. Wings totally infumated.
. **infumata** BOL.

Atractomorpha psittacina DE HAAN.

1842. *Acridium (Truxalis) psittacinum* DE HAAN, Bijdragen tot de kennis der Orthopt. p. 146, pl. 23, fig. 1.

¹⁾ This key is taken from the key in BOLIVAR (8 p. 196) but is very insufficient and requires a thorough revision, for the systematics of this genus are in a most hopeless state.

Body slender. Fastigium of vertex from above about twice as long as an eye. Mesosternal interspace distinctly longer than broad, narrower posteriorly. Wings narrow, not more than three times as broad as the elytra, shorter as the elytra. General coloration green or yellowish-green. Antennae bluish-green. Sides of the body more yellowish green.

Elytra green, anterior and posterior margin at the apex often reddish or yellowish. Wings slightly infumated with their bases rose, the apex more hyalinous, fore margin often greenish apically. Abdomen often red from above. Fig. 42.

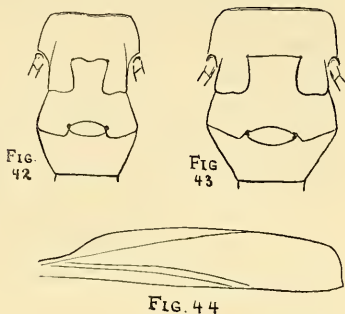


Fig. 42. *Atractomorpha psittacina* DE HAAN ♀ meso- and metasternum. —

Fig. 43. *Atractomorpha crenulata* FABR. ♀ meso- and metasternum. —

Fig. 44. *Desmoptera (novaeguineae)*. Elytra.

	♂	♀
Length of body	23—24 mm.	33—36 mm.
» » pronotum	4—4.5 »	7—7.5 »
» » elytra	20—21 »	28—31 »
» » hind femora	10—11 »	13.5—14 »

This species is ranging from India, Assam, Sumatra, Java to China, Celebes and the Philippines.

Sumatra: Medan, Surul, Pladju, Silago, Kota Tjane.

Atractomorpha consobrina SAUSSURE.

1861. *Atractomorpha consobrina* SAUSSURE, Ann. d.l. Soc. entom. de France, 4^e Ser. T. I, p. 475.

This species is unknown to me. The brief description of de SAUSSURE is as follows: „*A. crenulata* affinissima, sed corniculo praesternali submarginato, subbidentato.

Parfaitement semblable, pour les formes et la grandeur, à l'*A. crenulata*; ayant aussi les ailes roses à la base, mais s'en distinguant par des antennes un peu plus grêles, des formes un peu plus étroites, des élytres un peu moins larges,

par sa tête plus horizontale et son rostre un peu plus allongé. La lame presternale, subéchancrée, figurant presque deux dents. De l'île de Ceylon. Espèce voisine du *Truxalis psittacinus* HAAN."

This species is recorded from Sumatra by BOLIVAR (8, p. 204) in comparison with a specimen from Ceylon, but he doubts about the identity of these specimens.

Atractomorpha crenulata FABR.

1793. *Truxalis crenulatus* FABRICIUS, Entom. Syst. II, p. 28, no. 6.

Body slender. Fastigium of vertex from above about as long as an eye. Mesosternal interspace distinctly transverse, narrower posteriorly. Wings more than three times as broad as the elytra, somewhat shorter than the elytra.

General coloration green, brown or greyish brown with brownish spots. Antennae green or brown. Sides of the body more greenish yellow. Elytra green or brown or yellowish brown or brown with dark greyish spots, sometimes with a dark spot at the articulation of elytra; anterior and posterior margin near the apex often reddish. Wings slightly infumated, with their bases rose. Abdomen often reddish from above.¹⁾ (Fig. 43).

	♂	♀
Length of body	16—18 mm.	22—31 mm.
„ „ pronotum	3.5—4.5 „	6—6.5 „
„ „ elytra	15—17 „	20—25 „
„ „ hind femora	8—10 „	7—12.5 „

This species is ranging from India, Ceylon, Siam, Malay Peninsula, Sumatra to Java.

Sumatra: Padang, Anai Kloof, Fort de Kock, Lubuksikaping, (E. JACOBSON) Surul, Medan, Solok, Deli, Matur,

¹⁾ "Dr. ANNANDALE states that the colour of this insect alive is "uniform bright green, dorsal surface of abdomen tinged with rose-pink, sides of head and pronotum edged with shining white granules, a few similar granules on sides of mesonotum; eyes mottled." Vide L. Chopard. The Fauna of an Island in the Chilka Lake. The Dermaptera and Orthoptera of Barkuda Island. Rec. Ind. Mus. vol. XXVI, p. 190, 1924.

Silago, Balighe, Siboga, Pea Ragia, Medan, Arnhemia, Kota Tjane, Piso, Sibolangit.

***Atractomorpha lanceolata* BOL.**

1905. *Atractomorpha lanceolata* BOLIVAR, Bol. de la Real Soc. Espan. d. Hist. Natur. p. 197, 202.

This species is unknown to me. The description of BOLIVAR is as follows: „Statura majore. Corpore latiore. Colore olivaceo. Caput utrinque linea subrosea granosa regulari instructum. Fastigium lanceolatum, a latere visum oculo sublongius. Antennae ab oculis latitudine articuli primi haud distantes. Pronotum dorso carinis ante sulcum primum distincte coarctatis, deplanato, postice angulato obtuso, lobis deflexis margine inferiore linea subrosea tuberculis albidis rotundatis marginalibus limitatis, margine postico leviter arcuato, angulo postico acuto haud retrorsum producto. Elytra apicem femorum parum superantia. Prosternum tuberculo lato, transverso, apice subsinuato. Intervallum mesosternale fortiter transversum antrorsum parum ampliatum ♀ lobis mesosternalibus haud sesqui latius. Pedes postici elongati.

Long. corp. ♀ 29; cap. supra 5; ant. 6; pron. 7; elytr. 23; fem. post. 14.5; tib. post. 12 mill.”

Sumatra: Padang (Desgodins).

***Atractomorpha infumata* BOL.**

1905. *Atractomorpha infumata* BOLIVAR, Bol. de la Real Soc. Espan. d. Hist. Natur. p. 198, 207.

This species is unknown to me. BOLIVAR mentions this species in his key (p. 198) but gives no further description.

In his „Contribución al conocim. d. l. Fauna Indica, Orthoptera” he gives the following dimensions.

	♂	♀
Long. corp.	17 mm.	28 mm.
„ pron.	3.5 „	6.3 „
„ elytr.	17.5 „	26 „
„ fem. post.	9 „	13. „

Sumatra: Sumatra, coll. Museo de Genova and the collection of BOLIVAR himself.

Desmoptera.

1884. *Desmoptera* BOLIVAR, Ann. d.l. Soc. Esp. d. Hist. Nat. Tomo XIII, p. 57.

Size rather large, form robust, compressed, rugosely punctured, Antennae inserted at the apex of fastigium, short, reaching as far as the hind margin of pronotum, flattened, the apical joints more cylindrical; somewhat dilated basely.

Head conical, somewhat shorter than the pronotum, strongly reclinate and elongate, front in profile distinctly concave, not or scarcely protruding between antennae; frontal ridge between antennae compressed and deeply sulcate above the antennae, below the latter it is indicated as a shallow sulcus with scarcely raised, obtuse margins and subobliterate near the clypeus.

Lateral facial keels developed, slightly divergent downwards and somewhat curved, mostly indicated by a rugosely punctured keel. Cheeks rugosely punctured, sometimes with an indication of an oblique row of tubercles. Lateral ocelli placed just above the eyes. Fastigium of vertex shorter than an eye; its surface forming a rounded, though acute angle with the frontal carina, seen from above longer than broad, margins slightly convergent apically with apex circular or more triangular, a short shallow median sulcus in the anterior part and with a faint V-shaped impression, posteriorly transferring in a low median keel; vertex and occiput slightly ascending, flat, rugosely punctured.

Pronotum relatively short and broad, compressed laterally, narrowed anteriorly, rugosely punctulate, anterior margin slightly rounded, posterior margin obtusely angulated; median keel faintly indicated or hardly perceptible, lateral keels absent; first transverse sulcus only faintly indicated on the disc, second and third transverse sulcus distinct both on the disc and on the lobes, third transverse sulcus distinctly behind the middle; lateral lobes about as long as they are deep in the posterior part, almost perpendicular, lower margin strongly ascendant, anterior angle obtusely rounded, posterior angle less than 90° , more acute; hind margin arcuately excised. Prosternum with the anterior margin with

a more or less sharply pointed tubercle in the middle and a median transverse impression in the middle of its surface.

Sternum punctured, fore margin nearly straight and marginated; mesosternal lobes quadrate or moderately transverse, their interspace transverse, slightly narrowing posteriorly; metasternal foveolae small, broadly separated, their interspace transverse. Elytra and wings long, reaching far behind the apex of hind femora; apex of elytra obliquely truncate, anterior and posterior margin subparallel, anterior margin suddenly narrowed near the base. Wings about as long as elytra, hyalinous or infumated. Hind femora relatively short; area infero-externa slightly convergent anteriorly. Hind tibiae straight, with the upper margins obtuse, from above shallowly sulcate in the apical third, armed with 10—11 outer and 9—10 inner spines, with outer apical spine. Hind tarsi short, third joint about as long as two basal joints together. Abdomen compressed laterally.

Subgenitalplate of the male small, subconical. Supra-analplate of the female short, triangular with the apex subacute and an oval impression in the middle. Cerci short, apex obtuse. Valvae of ovipositor slightly elongate, upper valves sub serrate; apex recurved, acute. Subgenital-plate elongate, hind margin with a triangular projection in the middle. (Fig. 44).

Genotype: *Desmoptera judicata* BOL.

Only represented by one species.

***Desmoptera sundaica* REHN.**

1909. *Desmoptera sundaica* REHN, Bull. Am. Mus. of Nat. Hist. vol. XXVI, p. 188, fig. 12, 13.¹⁾

This species is unknown to me. REHN gives the following description. „Size moderately large; form distinctly compressed, venter flattened; surface irregularly granulose. Head with the dorsum slightly less than two-thirds the length of the pronotum; occiput regularly and considerably ascending to the interocular region which is slightly more than half the greatest width of the fastigium; fastigial cleft

¹⁾ In the figures 12 and 13 is the name *sundaica* erroneously changed into *sundiaca*.

indicated dorsad only by an impressed line for half the fastigial length, the margins of the fastigium being slightly converging to the obtuse-angulate apex, which has the margins of the fastigial cleft slightly protuberant, a broad rather shallow V-shaped impression with the apex directed forward is placed mesad on the disk of the fastigium; fastigio-facial angle rostrate, shallow, the apical portion of the fastigium obliquely declivent when seen from the side, the immediate apex subtruncate, the facial portion of the apex slightly oblique; facial outline decidedly retreating, concave; frontal costa very narrow, very slightly and regularly expanding caudad, moderately sulcate; lateral facial carinae moderately prominent, slightly diverging dorsad and ventrad, considerably diverging between the ventral portions of the eyes; eyes hardly prominent, moderately large, ovate in outline with a ventro-caudal truncation, slightly shorter than the infra-ocular portion of the genae; antennae very slightly shorter than the dorsal length of the head and pronotum, considerably depressed, very slightly expanded proximad, the apex short acute.

Pronotum with the dorsum subarcuate in section cephalad, sub-deplanate caudad, greatest caudal width of the dorsum about two-thirds the length of the same; cephalic margin very slightly arcuate and supplied with small tubercles, caudal margin obtuse-angulate, the immediate apex subtruncate; transverse sulci three in number, the caudal one the more pronounced and straighter than the others, the metazona and prozona sub-equal in length; median carina hardly apparant, no lateral carinae, the shoulder on the metazona not prominent; lateral lobes with their greatest dorsal length equal to their greatest caudal depth, the caudal margin of the lobes with the ventro-cephalic angle high, obtuse-angulate, the ventro-caudal angle slightly produced, obliquely subtruncate at the apex, ventral margin with its cephalic two thirds decidedly oblique-truncate, the caudal third slightly oblique.

Tegmina appreciably more than twice the length of the caudal femora, exceeding the apex of the femora and of the abdomen by about the length of the head and pronotum, the

greatest width contained five and one third times in the greatest length: costal lobe moderately large, the defining concavity of the same marked only on the proximal side, the costal margin straight thence to near the distal third where the margin slightly then rather abruptly rounds to the subtruncate apex, sutural margin nearly straight, the disto-sutural angle rectangulate.

Prosternal projection transverse, supplied with a median transverse impression, the cephalic fold slightly more elevated than the caudal; interspace between the mesosternal lobes moderately transverse, slightly narrower caudad than cephalad; metasternal lobes widely separated, the lobes moderately arcuate, the interspace very shallow. Cephalic and median limbs slender, slightly elongate. Caudal femora falling slightly short of the apex of the abdomen, tapering, the proximal extremity subtruncate, margins well elevated, the pattern of the pagina irregularly diamond-shaped, genicular lobes moderately acute; caudal tibiae slightly shorter than the femora, slender, straight, armed on the external and internal margins with nine spines; caudal tarsi slender, the first and third joints subequal.

General color uniform prout's brown, the abdomen and venter touched with tawny-olive, the tegmina with about a half a dozen scattered minute points of seal brown.

	♀
Length of body	30.5 mm.
» » pronotum	6 »
» » tegmen	30 »
» » caudal femur	13.2 »

This species is only known from Sumatra, without further indication of locality.

Tagasta.

1905. *Tagasta* BOLIVAR, Bol. Soc. Esp. Hist. Nat. vol. 5, p. 112.

1877. *Mestra*, STÅL. Orth. ex. Ins. Philipp. (nom. praeoccup.).

Size moderately large, body robust, subfusiform, slightly compressed laterally, finely rugosely punctured. Antennae inserted near the lateral ocelli, reaching the hind margin of pronotum, subfiliform, in the basal half flattened, joints elongate.

Head conical, shorter than pronotum, elongate and strongly reclinate, front in profile subconcave, scarcely protruding between antennae; frontal ridge between antennae compressed and deeply sulcate, not dilated above the antennae, margins subparallel, slightly dilated towards the clypeus, below the antennae indicated as a shallow sulcus, with scarcely raised, obtuse margins, subobliterate near the clypeus. Lateral facial keels developed, low. Cheeks with an oblique row of granules. Lateral ocelli placed just above the eye.

Fastigium of vertex as long as or somewhat shorter than an eye; its surface forming a sharp angle with frontal carina, seen from above longer than broad, margins slightly convergent apically, apex obtusely pointed or rounded, a short shallow sulcus in the anterior part, posteriorly transferring in a low median keel. Vertex and occiput flat with a low median keel.

Pronotum narrowed anteriorly, rugosely punctulate; anterior margin rounded truncate, posterior margin obtusely angulate, median keel low, sometimes scarcely perceptible in metazona, lateral keels very indistinct, sulci indistinct, third transverse sulcus distinctly behind the middle; lateral lobes longer than high, lower margin ascendent, thickened, anterior angle obtusely rounded, posterior angle acutely rounded, posterior margin arcuately excised. Prosternum with anterior margin provided with an short spine or strumose.

Sternum sparsely punctulate, fore margin feebly convex and margined; mesosternal lobes subquadrate, there interspace as long as broad (♂) or broader than long (♀); metasternal foveolae small, broadly separated, their interspace transverse. Elytra and wings short, not reaching beyond the apex of hind femora, anterior margin expanded basally, gradually narrowed towards apex, which is narrowly rounded.

Wings somewhat shorter than elytra, red. Hind femora relatively short, area inf.-externa slightly divergent anteriorly. Hind tibiae nearly straight with the upper margins obtuse, armed with 9–10 outer and 10–11 inner spines, with outer

apical spine. Hind tarsi short, third joint about as long as two basal joints together.

Supra-anal plate of the male short, triangular, apex rounded. Cerci short, conical. Subgenital plate short, conical, apex obtuse. Supra-anal plate of the female short, triangular, apex rounded with a shallow impression in the middle. Cerci short, conical. Valves of ovipositor short, with the margins obtuse, recurved apically. Subgenital-plate longer than broad, hind margin obtuse.

Genotype: *Mestra hoplosterna* STÅL.

Only represented by one species.

***Tagasta marginella* THUNB.**

1815. *Truxalis marginellus* THUNBERG, Mém. Acad. Pétersb. V, p. 265.

1842. *Acridium (Pyrgomorpha) chloropum* DE HAAN, Verhandel. Orth., p. 149, No. 3, pl 23, fig. 3.

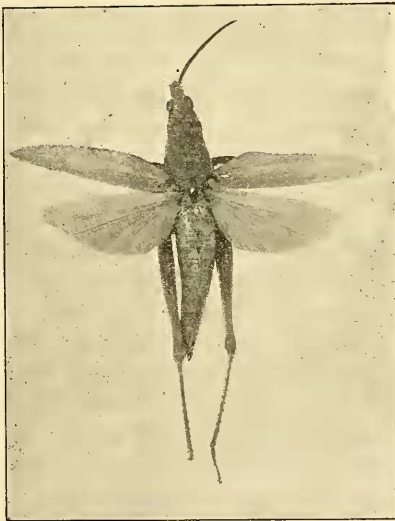


Fig. 45. *Tagasta marginella* THUNB. ♀. This photo represents the type of *Acridium (Pyrgomorpha) chloropum* DE HAAN.

Fastigium of vertex about one and a half time as long

as the basal width. General coloration yellowish green. Antennae bluish green or brownish green, apex often brownish. Head yellowish green, especially the front, vertex green, the oblique row of tubercles on the cheek yellow.

Pronotum greenish, the lower part of lateral lobes more yellowish green, its lower margin yellow. Elytra totally greenish, with a brownish-black spot near the articulation. Wings bright red, except the extreme tip that is more hyalinous or pale rose. Anterior legs green or yellowish green, tarsi brownish green. Hind femora yellowish green, under surface more yellow, hind knees brownish-green. Hind tibiae bluish green, the extreme apex brownish, spines yellowish with black tips. Hind tarsi brownish. Sternum and abdomen yellow beneath, abdomen often red from above.

	♂	♀
Length of body	17—22 mm.	28—30 mm.
» » pronotum	4.5—5.5 »	7—9 »
» » elytra	14—15 »	14—20 »
» » hind femora	11—12 »	13—16 »

This species is only known from Sumatra and Java.

Sumatra: Lubuksikaping (E. JACOBSON), Kutur, Surul, Silago, Siboga, Pea Ragia, Medan, Bah Lias, Soekadjadi, Sibolangit, Brastagi.

Verdulia.

1905. *Verdulia* BOLIVAR, Bol. de la Real Soc. Esp. d. Hist. Nat. p. 281.

The description of BOLIVAR is as follows.

“Corpus cylindraceum elongatum. Fastigium trigonale deplanatum. Costa frontalis tantum inter antennis et apicem fastigii explicata. Antennae filiformes elongatae basi subtri-quetrae. Pronotum dorso tereti cribroso-punctato, postice obtuse rotundato, lobis deflexis. Elytra venis longitudinalibus confertis parallelis obsita. Alae margine undulato.

Tibiae posticae canthis obtusis spina apicali externa armatae. Tarsi pilosi. Prosternum tuberculo cuneiforme apice truncato instructum. Lamina sternalis elongata. Intervallum mesosternale angustum x-formi, lobis rotundatis. Abdomine ♂ apice clavatum depressum. Segmentum anale magnum, medio

profunde sinuatum, lamina supraanalis spathulata. Cerci compressi postice incurvi. Valvulae ovipositoris ♀ sinuatae."

Genotype: *Acridium (Pyrgomorpha) cycloideum* DE HAAN.

Key to the species.

"1 Alae rufae extus infusatae. . . . *Dohrni* BOL.

1.1. Alae infumatae¹. *olivacea* BOL."

Verdulia Dohrni BOL.

1905. *Verdulia Dohrni* BOLIVAR, Bol. d. l. Real Soc. Esp. d. Hist. Natur. p. 28.

This species is unknown to me. BOLIVAR gives the following description.

"Griseo-virescens, utrinque fascia lata citrina ab oculis usque basi femorum posticorum extensa. Fastigium triangulare, marginibus sinuatis. Frons apicem versus medio subsulcata. Oculi testacei. Pronotum unicolor vel pallide varium. Elytra medium femorum posticorum externa pallide variegata. Alae rufae externe infusatae. Femora postica basi supra virescentes, geniculae intus obscure glaucae; area infero-interna rufa. Tibiae glaucescentes, intus obscuriores, longe griseo pilosae. ♂ Abdomen apicem versus subdepressum segmentis ultimis fusco marginatis, segmento paenultimo late sinuato, medio obtusissime angulato; segmento anali profunde sinuato. Lamina supraanalis spathuliformi, elongata, apicem versus parum ampliata atque apice sub cardiformi.

Cerci apice subampliati supra oblique truncati. Lamina infragenitalis carina longitudinali media instructa.

Long. corp. ♂ 28; antenn. 12; cap. 4.8; pron. 5; elytr. 10.5; fem. post. 11 mill."

Long. corp. ♀ 50.5; antenn. 12; cap. 6.5; pron. 8; elytr. 14; fem. post. 16 mill.

This species is known from Sumatra, without further indication of locality and from Java.

Verdulia olivacea BOL.

1905. *Verdulia olivacea* BOLIVAR, Bol. d. l. Real Soc. Esp. d'Hist. Natur. p. 284.

This species is unknown to me. BOLIVAR gives the following description.

"Corpore obscuro-griseo virescenti, utrinque vitta minus lata flava ornato; fronte fusca. Fastigium triangulare lateribus subsinuatis. Antennae elongatae. Elytra pone medium femorum parum extensa. Alae infumatae. Femora postica flavovirescentia intus et subtus rufa. Tibiae posticae nec non geniculis intus nigro subviolaceae griseo villosae, basi incrassatae. Abdomen apicem versus subdepressum, segmentis fusco-marginatis segmento paenultimo late sulcato, segmento anali profunde exciso.

Lamina supraanalis elongata spathuliformi supra carinata, pone medium ampliata cordiformi. Cerci ante apicem supra subtusque sinuati apice compressi. Lamina infragenitalis subtus apice carrinata ♂.

Long. corp. ♂ 27; antenn. 10.5; cap. 4.6; pron. 4.8; elytr. 11.5; fem. post. 11 mm."

This species is only known from Sumatra.

Sumatra: Deli.

Systella.

1841. *Systella*, WESTWOOD. Arcana Entom. I, p. 12.

1875. *Gyrtona* STÅL. Bihang Svensk. Akad. Handl. III (14), p. 25.

Size medium, body slender, strongly compressed laterally, rugosely punctured. Antennae inserted at the apex of fastigium, relatively short, reaching as far as the hind margin of pronotum or shorter, triquetral, in the basal half often dilated, especially in the female, apical joints elongate.

Head conical, ascending, somewhat shorter than the pronotum, strongly reclinate, front in profile slightly concave, scarcely protruding between antennae; frontal ridge between antennae compressed and deeply sulcate, below the latter subobliterate, near the clypeus totally obliterate.

Lateral facial keels absent. Front and cheeks rugosely punctured. Lateral ocelli placed just above the eyes. Fastigium of vertex as long as or somewhat longer than an eye, its surface forming a round though acute angle with the frontal carina, seen from above longer than broad, surface parabolical, margins subparallel, with apex circular or more triangular, a short shallow median sulcus in the anterior

part and with a faint V-shaped impression; vertex rugosely punctured. Pronotum strongly compressed laterally, parallel or nearly so, more finely punctured, anterior margin straight, posterior margin arcuately rounded; median keel scarcely perceptible, lateral keels indicated by rugosely punctured lines, parallel; first transverse sulcus faintly indicated on the disc and lateral lobes, second transverse sulcus only indicated on the lateral lobes; third transverse sulcus indicated on the disc and lateral lobes, lying in the middle of pronotum; lateral lobes vertical, much higher than long, lower margin strongly ascendant, anterior angle obtuse, posterior angle less than 90° , acute; hind margin arcuately excised. Prosternum with the anterior margin bearing a small more or less sharply pointed tubercle in the middle.

Sternum elongate, more or less granulose, anterior margin angulately rounded, mesosternal lobes longer than broad, inner margin rounded, their interspace narrow, widened posteriorly, longer than broad; metasternal foveolae small, elongate, contiguous throughout along a straight line.

Elytra and wings vertical, long, reaching far behind the apex of hind femora, elytra very broad, anterior margin slightly rounded, with a great excavation towards the apex, posterior margin always broadly rounded; costal area broad, anal area very small. Wings about as long as elytra, costal area very broad; hyalinous, with a few pale spots in the middle.

Anterior legs short, compressed laterally. Hind femora strongly compressed laterally, upper carina scarcely serrate. Hind tibiae straight, armed with 9—10 outer and 8 inner spines, with outer apical spine. Hind tarsi short, third joint about as long as two basal joints together.

Abdomen compressed laterally.

Supra-anal plate of the male triangular, apex rounded, with an oval impression basally.

Cercus conical, apex pointed and slightly curved. Subgenital plate strongly compressed laterally, large, angulately bent, apex more or less pointed.

Supra-anal plate of the female triangular, apex obtuse,

with a median sulcus basally. Cercus short, conical, apex obtuse, slightly curved.

Valvae of ovipositer elongate, upper pair somewhat longer than the lower; upper valvae minutely serrate or subserrate. (Fig. 46).

Genotype: *Systella Rafflesii* WESTW.

Key to the species.

Two species only occur in Sumatra, *S. Rafflesii* WESTWOOD and *S. obliqua* WALK. From *S. Rafflesii* only the female is known, from *obliqua* only the male. It is not impossible that these are conspecific, but more material, especially male and female from the same locality, is required to dissolve this question.

1. Antennae in the basal half strongly dilated ♀.

. . . . *Rafflesii* WESTWOOD.

1.1. Antennae in the basal half not or only very slightly dilated ♂.

. . . . *obliqua* WALK.

Systella Rafflesii WESTWOOD.

1841. *Systella Rafflesii* WESTWOOD, Arcana Entom. I, p. 12, pl. IV, figs. 1, 2; ♀.

Size medium, body strongly compressed laterally, rugose-ly punctured. Antennae short, extending nearly to the middle of pronotum, strongly dilated basally, with the joints lamellately expanded outwardly and fairly suddenly narrowed near the middle of antennae, apical joint more or less pointed. Fastigium of vertex with fore margin rounded triangular. Elytra very broad, anterior margin slightly convex, sinus anteapicalis relatively large, concave; costal area slightly narrowed before the apex; anterior angle of apex more or less pointed, posterior margin broadly rounded.

General coloration brown (or green?); elytra brown, leaflike, tessellate with greenish brown or more hyaline markings, with a dark brown oval or round spot in the middle of the costal area, and a brown oblique stripe across the elytra, running from the round spot to the posterior angle

but not reaching this angle; besides some blackish irregular spots; veins and veinlets with regular blackish points.

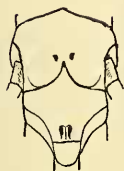
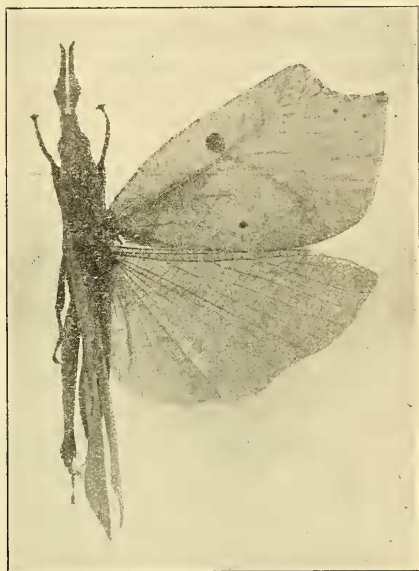


FIG. 46

Systella

sp. ♂. Meso- and
metasternum.

Fig. 47. *Systella Rafflesii* WESTW. ♀.

This specimen is compared by me with the type
of WESTWOOD in the British Museum.

Wings hyalinous with yellow veins and some irregular whitish spots in the middle of the wing. Anterior legs brown or blackish brown. Hind femora brown, area externa with some irregular dark spots. Hind tibiae brown with one or two dark spots basally. Fig. 47.

This species is known from Malay Peninsula and Sumatra.

		♀
Length of body		40 mm.
» » antennae		7.5 »
» » pronotum		10.5 »
» » elytra		35 »
» » wings		35 »
» » hind femora		19 »

Sumatra: Deli, Sukaranda, Indragiri, Sungei Lalah.

***Systella obliqua* WALKER.**

1870. *Trigonopteryx obliqua* WALKER. Catal. Derm. Salt. III, p. 519.

Size medium, body strongly compressed laterally, rugosely punctured. Antennae reaching a little beyond the middle of pronotum, not or only slightly dilated basally, apical joint more or less pointed.



Fig. 48. *Systella obliqua* WALKER ♂.
This specimen is compared with the type by
Mr. B. P. UVAROV.

Fastigium of vertex with fore margin rounded triangular. Elytra very broad, anterior margin slightly convex, sinus ante-apicalis relatively long, subconcave; costal area slightly narrowed before the apex; anterior angle of apex pointed, posterior margin broadly rounded.

General coloration green; elytra green, leaflike, with a dark oblique stripe, running from the middle of the anterior margin to the posterior angle, but not reaching this angle, besides some dark irregular spots; veins and veinlets with regular blackish points.

Wings hyalinous with yellow veins and some irregular whitish spots in the middle of the wing. Anterior legs

brownish. Hind femora greenish or yellowish brown, without or with some dark spots on the outer area. Hind tibiae yellowish green with a dark spot basally.

This species is known from Perak, Siam, Pahang Malacca and Sumatra.

Length of body		♂	
		30	mm.
»	» antennae	9.5—10	»
»	» pronotum	7—7.5	»
»	» elytra	30—33	»
»	» wings	27—30	»
»	» hind femora	14—15	»

Sumatra: Kota Tjane (MjöBERG).

Trigonopteryx.

1841. *Trigonopteryx*, CHARPENTIER, Orth. descript. et depicta pl. 5.

Size medium, body slender, strongly compressed laterally, rugosely punctured. Antennae inserted at the apex of fastigium, reaching as far as or beyond the hind margin of pronotum, in the male the second basal joint globular, from there with 3—4 joints triquetral and dilated, the apical half cylindrical and distinctly separated from the dilated basal half; in the female the basal half also triquetral and dilated, but regularly passing in the more or less cylindrical joints of the apical half. Head conical, ascending, somewhat shorter than the pronotum, strongly reclinate, front in profile slightly concave, scarcely protruding between antennae; frontal ridge between antennae compressed and deeply sulcate, below the antennae constricted and subobliterate, near the clypeus totally obliterate. Lateral facial keels absent or subobliterate. Front and cheeks rugosely punctured. Lateral ocelli placed just above the eyes.

Fastigium of vertex as long as or somewhat longer than an eye, its surface forming an acute angle with the frontal carina, seen from above longer than broad, surface flat or parabolical, margins subparallel, with apex triangular; a shallow median sulcus on the vertex; vertex rugosely punctured.

Pronotum strongly compressed laterally, parallel or nearly so, more finely punctured, anterior margin slightly rounded, posterior margin arcuately rounded; median keel low, though distinct, lateral keels indicated by rugosely punctured lines or a more rough granulation, parallel; transverse sulci faintly indicated, third transverse sulcus distinctly behind the middle; lateral lobes vertical, much higher than long, lower margin strongly ascendant, anterior angle obtuse, posterior angle less than 90° , acute or rounded; hind margin arcuately excised.

Prosternum with the anterior margin bearing a large pointed tubercle in the middle, sometimes with a long spine. Sternum elongate, anterior margin angulately rounded; mesosternal lobes longer than broad, inner margins rounded, their interspace widened posteriorly, longer than broad; metasternal foveolae small, elongate, contiguous throughout along a straight line.

Elytra and wings vertical, long, reaching behind the apex of hind femora. Elytra very broad, anterior margin slightly rounded, with or without an excavation near the apex, posterior margin straight or slightly rounded, posterior angle rounded or straight; costal area broad, anal area very small.

Wings about as long as elytra, costal area very broad; hyalinous, always with some irregular dispersed blackish spots in the middle and anterior part. Anterior legs short, compressed laterally. Hind femora strongly compressed laterally, upper carina scarcely serrate. Hind tibiae straight, armed with 8-9 outer and 8-11 inner spines, with outer apical spine. Hind tarsi short, third joint about as long as two basal joints together. Abdomen compressed laterally.

Supra-anal plate of the male triangular, long, apex pointed, with a deep slit-like impression basally.

Cercus conical, apex pointed, not reaching beyond the supra-analplate, sometimes very long, reaching far beyond the supra-analplate with the apex more or less truncate. Subgenital plate strongly compressed laterally, large, angulately bent or rounded, apex more or less pointed. Supra-analplate of the female triangular, apex obtuse, with a median sulcus basally. Cercus short, conical, apex obtuse, slightly curved.

Valvae of ovipositor elongate, upper pair somewhat longer than the lower ones, upper valvae suberrate or blunt.

Genotype: *Trigonopteryx punctata* CHARP.

Key to the species.

1. Elytra and wings extending far beyond the apex of hind femora. Elytra relatively narrow, the excavation of the anterior margin near the apex, only slightly indicated . . .

. **Hopei** WESTW.

1.1. Elytra and wings shorter, reaching but little beyond the apex of hind femora. Elytra distinctly broader, with distinct excavation near the apex . . . **sumatrana** nov. sp.

Trigonopteryx Hopei WESTW.

1841. *Systella Hopei* WESTWOOD. Arcana Entom. I, p. 12, pl. 4, ff. 3.3^a.

General coloration brown or reddish brown. Antennae



Fig. 49. *Trigonopteryx Hopei* WESTW. ♂.

brown, in the male reaching beyond the hind margin of

pronotum, apical half yellowish-brown. Head reddish-brown, with a blackish brown oblique stripe across the cheeks, running from the lower angle of the eye to the hind angle of the cheeks; vertex blackish brown with small blackish lateral post-ocular fasciae. Pronotum brown, disc blackish-brown with black lateral fasciae.

Elytra and wings very long, extending far behind the apex of hind femora. Elytra triangular; costal area relatively broad with the anterior margin convex, feebly expanded towards the middle, and gradually narrowing apically, terminating gradually in the radial vein. The very apex rotundate-punctate, apical margin near the apex slightly concave, posterior margin straight or nearly so.

Wings as long as elytra, anterior area somewhat smaller than the posterior one, anterior margin near the apex rounded; apex rounded, apical margin with a triangular incision near the termination of the ulnar vein; posterior margin rounded. Elytra brown, reddish brown, with irregular dark spots, generally forming an irregular triangular oblique figure in the middle of elytra, besides some dark spots in the basal and apical half of elytra and some black points irregularly dispersed.

Wings yellowish, veins reddish, with some dark round spots in the anterior area and along the ulnar vein. Abdomen brown. Anterior legs brown or blackish-brown. Hind femora reddish brown, with irregular grey-brown spots on the keels and the outer sides. Hind tibiae yellowish brown, spines with black tips. Fig. 49. ♂ ♀ ¹⁾

Length of body	31—32 mm.	38 mm.
» » antennae	15—16 »	15 »
» » pronotum	7—7,5 »	9,5 »
» » elytra	36—37 »	43,5 »
Width » elytra	10,5—11 »	15 »
Length » hind femora	16—17 »	22 »

This species occurs in China, Borneo, Java and Sumatra.

Sumatra: Upper Langkat, Deli, 1894 (M. H. DE S.) 1 ♂ (Coll. Mus. Berlin).

***Trigonopteryx sumatrana* nov. sp.**

General coloration brown. Antennae brown, in the male

¹⁾ After a specimen from Borneo (mus. Hamburg).

reaching beyond the hind margin of pronotum, in the female a little shorter. Apical half of antennae in the male sometimes yellowish-brown. Head brown or blackish-brown, with dark lateral postocular fasciae or the sides blackish-brown. Pronotum brown with irregular dark spots or blackish-brown.

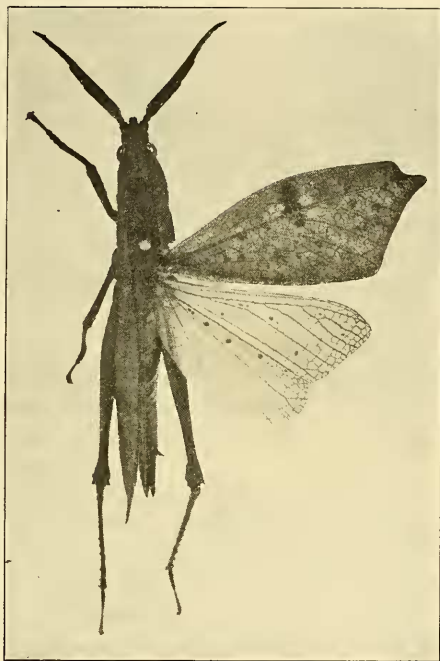


Fig. 50. *Trigonopteryx sumatrana* nov. sp. ♂.

Elytra and wings little extending beyond the apex of hind femora. Elytra triangular, costal area relatively broad with the anterior margin slightly convex, feebly expanded towards the middle, gradually narrowing apically and before the apex suddenly terminating in the radial vein, somewhat variab. The very apex pointed, apical margin slightly concave, posterior margin nearly straight.

Wings as long as elytra, anterior area as broad as or broader than the posterior one, anterior margin slightly

rounded, apex rounded, apical margin with a triangular incision near the termination of the ulnar vein, posterior margin rounded.



Fig. 51.
Trigonopteryx sumatrana
nov. sp. ♂. coll. London.



Fig. 52. *Trigonopteryx sumatrana*
nov. sp. This specimen represents
a male of the Berliner Museum.
The shape of the elytra is some-
what different from that of the
type, but I do not think that it
is of specific value.

Elytra and wings brown, elytra sometimes greenish-brown, with irregular dark spots, generally forming an indefinite oblique band, from the middle of the anterior margin to the posterior angle of the posterior margin, besides some small round dots irregularly dispersed; wings hyalinous, veins reddish brown, with some dark round spots along the radial and ulnar vein.

Abdomen brown. Anterior legs brown. Hind femora brown or with some dark spots, hind tibiae brown or reddish brown.

Fig. 51, 52.

	♂	♀
Length of body	24 mm.	36 mm.
» » antennae	12 »	11 »
» » pronotum	6.5 »	8.5 »
» » elytra	18—22 »	29 »
Width » »	7—8 »	10 »
Length » hind femora	13—15 »	16 »

This species is only known from Sumatra.

Sumatra: Benkulen, Tambang Sawah, 450 M. (leg. WALCKE), 1 ♀ type; Sungei Kumbang, Korinchi 4,500 ft., April 1914, 1 ♂, 1 ♀ (coll. London); Sumatra 1 ♂ (coll. Leiden); Sumatra 1 ♂ (coll. Berlin). Type in Museum Leiden.

SUBFAM. VI. CATANTOPINAE.

Key to the genera.

1. Hind tibiae with an apical spine on both sides. The outer apical spine is sometimes small and difficult to see.

2. Fastigium of vertex projecting considerably beyond the eyes. Hind femora strongly compressed laterally. Hind tibiae rounded **Mitricephala** BOL.

2.2. Fastigium of vertex normal, not projecting considerably beyond the eyes.

3. Face almost perpendicular; fastigium of vertex forming a broadly rounded arch with the frontal ridge. Genitalia of male strongly thickened. **Parenthymia** nov. gen.

3.3. Face reclinate, fastigium of vertex forming an acute or obtusely angulated angle with the frontal ridge. Genitalia of male normal.

4. Mesosternal lobes separated by a distinct interspace.

5. Frontal ridge only indicated between the eyes, obliterated or subobliterated below. Antennae long.

6. Lateral facial carinae strongly divergent downwards, well developed, though low. Head about as long as the pronotum **Cranae** STÅL.¹⁾

6.6. Lateral facial carinae obsolete or only indicated in the lower part. Head shorter than the pronotum.

7. Prosternal tubercle transverse, broad, with the apex broadly emarginate or truncate. Cerci of the male straight, conical, apex obtusely pointed. **Lucretilis** STÅL.

7.7. Prosternal tubercle short, conical, pointed. Cerci of

¹⁾ In the collection of the Leiden Museum there is a *Cranae* sp., 1 ♀ from Tandjong Morawa, Serdang (N. E. Sumatra). This specimen however is in a bad state, missing antennae and about all the legs. It is impossible to identify this specimen and I abstain from describing it. It proves that *Cranae* sp. occur also in Sumatra.

the male broad, compressed laterally, apex obliquely truncate, the very apex pointed **Stolzia** nov. gen.

5.5. Frontal ridge well developed and reaching the clypeus, sometimes only indicated by a row of points.

6. Prosternal spine conical or cylindrical. Outer apical spine of hind tibiae very distinct.

7. Hind tibiae in the apical half laminately expanded

8 The inner margin of hind tibiae with a regular row of about 10 spines **Oxya** SERV.

8.8. The inner margin of hind tibiae with about 8 spines; the distance between the last two spines being twice or thrice the distance of the basal ones. . . **Gesonia** STÅL.

7.7. Hind tibiae normal, rounded . . **Caryanda** STÅL.

6.6. Prosternal spine with the apex broadly emarginate or truncate. Outer apical spine of hind tibiae small and often scarcely perceptible. **Tanchira** STÅL.

4.4. Mesosternal lobes contiguous or nearly so. . . .
. **Oxyrrhepes** STÅL.

1.1. Hind tibiae without outer apical spine.

2. First joint of hind tarsi about as long as the second. Hind tarsi long, reaching the middle of hind tibiae . . .
. **Eritrichius** BOL.

2.2. First joint of hind tarsi distinctly longer than the second one.

3. Fastigium of vertex rounded triangular, distinctly separated from the frontal ridge by a carina, forming with the frontal ridge a sharp angle **Gonista** BOL.

3.3. Fastigium of vertex not separated from the frontal ridge by a carina, but forming an obtuse or rounded angle with the frontal ridge.

4. Pronotum without lateral keels.

5. Mesosternal lobes longer than broad, with inner margins straight or nearly so.

6. Prosternal spine strongly inclined and angulately bent towards the mesosternum, touching the latter or nearly so; its preapical part more or less incrassate
. **Chondracris** UVAR.

6.6. Prosternal spine straight, vertical or only slightly inclined towards the mesosternum, never reaching the latter.

7. Hind femora short and broad, with the apical part hardly attenuate **Valanga** UVAR.

7.7 Hind femora long and narrow, with the apical part attenuate **Patanga** UVAR.

5.5. Mesosternal lobes quadrate or broader than long, with inner margins rounded.

6. Median keel of pronotum low. Disc of pronotum with four distinct round tubercles, two on the meso- and two on the metazona. Sometimes besides these tubercles some irregular ones in the prozona . . . **Tuberofera** nov. gen.

6.6. Pronotum without tubercles, or median keel forming a high crest.

7. Prosternal tubercle conical with the apex sharply pointed or with the apex more obtuse but in this case the median keel of pronotum strongly raised, forming a high crest.

8. Frontal ridge in profile straight, not or scarcely prominent between the antennae.

9. Median keel of pronotum forming a high crest.

10. Median keel of pronotum distinctly denticulated throughout its length, especially in the anterior part; not covering the abdomen, **Althaemenes** STÅL.

10.10. Median keel of pronotum forming a very high crest, covering half the length of the abdomen.

. **Teratodes** BRULLÉ.

9.9. Median keel of pronotum low, normal.

10. Upper carina of hind femora smooth or practically so.

. **Pseudocoptacra** nov. gen.

10.10. Upper carina of hind femora distinctly denticulated.

11. Elytra and wings not reaching beyond the apex of the abdomen or lateral, scale-like.

12. Sulci of the pronotum subobliterated.

. **Traulidea** nov. gen.

12.12. Sulci of the pronotum deeply cut

. **Bibracte** STÅL.

11.11. Elytra and wings long, extending well beyond the apex of abdomen. Frontal ridge distinctly widened between the antennae. **Eucoptacra** BOL.

8.8 Frontal ridge in profile distinctly prominent between

the antennae. **Traulia** STÅL.

7.7. Prosternal tubercle cylindrical with the apex obtuse or strongly transverse.

8. Prosternal tubercle strongly transverse.
 **Paratraulia** WILL.

8.8. Prosternal tubercle cylindrical or obtusely conical.
 **Catantops** SCHAUM.

Mitricephala.

1898. BOLIVAR, Ann. d. Mus. Civico d. Stor. Nat. d. Genova Ser. 2, vol. XIX (XXXIX), p. 91.

Size medium, body slender, cylindrical, rugosely punctured. Antennae with the 3—6 basal joints triquetral, apical joints filiform generally not reaching beyond the hind margin of pronotum. Face strongly reclinate, frontal ridge projecting between the antennae, compressed and deeply sulcate, below the latter sub-obliterate, near the median ocel indicated by a low sulcus, below the latter obliterate. Eyes strongly prominent, long-oval, interocular distance about as broad as fastigium of vertex.

Fastigium of vertex projecting considerably beyond the eyes, longer than broad, horizontal, slightly narrowed in front, somewhat pyriform in shape, apex rounded, with a small median sulcus anteriorly and a faint trace of a median carinula posteriorly being more distinct on the occiput. Lateral carinae absent or subobsolete.

Pronotum cylindrical, rugosely punctate, between the first and third transverse sulcus more finely punctate; without keels, anterior margin rounded or more truncate, hind margin rounded; first transverse sulcus faintly indicated on the disc, distinct on the lateral lobes, second and third transverse sulcus distinct both on the disc and on the lobes, the second one a little before the middle, the third one far behind the middle. Lateral lobes much longer than high, anterior and posterior angle rounded, lower margin nearly straight.

Prosternal tubercle broad, cuneiform, with the apex truncate and a slight excavation on the posterior side near the apex.

Sternum long, mesosternal lobes with the inner margin

rounded, their interspace narrow, longer than broad; metasternal lobes practically contiguous.

Elytra and wings developed, not reaching the apex of abdomen; elytra with the apex obtusely pointed, almost entirely with longitudinal veins; wings cycloid, about as long as the elytra. Hind femora strongly compressed laterally, external face flat, externo-median area with irregular ridges, carinae smooth or subserrate, knee lobes obtuse. Hind tibiae straight, rounded, the apical half sulcate from above, with 7 spines outwardly, provided with apical spine, 10 spines inwardly; hind tarsi relatively long, reaching the middle of hind tibia, third joint as long as two basal joints together. ♂ unknown. ♀ Supra-analplate long, triangular, apex more or less pointed, with a median impression throughout. Cerci triangular, apex pointed, not reaching beyond the supra-analplate. Valves of ovipositor long, upper valves somewhat longer than the lower ones, apex strongly recurved. Subgenital plate longer than broad, hind margin straight.

Genotype: *Mitricephala vittata* BOL.

Key to the species.

1. Elytra short, not reaching beyond the third abdominal segment; broad, with its greatest width about the middle, apex rounded. **obtusa** nov. sp.

1.1. Elytra longer, reaching as far as the fifth abdominal segment, narrower, with its greatest width in the basal third and a more acute-rounded apex.

2. Fastigium of vertex long and relatively narrow. Elytra with its greatest width in the basal third, relatively broad. **gracilis** nov. sp.

2.2. Fastigium of vertex distinctly shorter and less narrow. Elytra with the anterior and posterior margin subparallel. **vittata** BOL.

Mitricephala obtusa nov. sp.

General coloration brown (discoloured by alcohol). Antennae brown (damaged). Lower part of lateral lobes of pronotum with a yellow band hardly perceptibly.

Hind tibiae with the inner margin blackish brown. Fastig. vertic. as in *vittata* BOL. Elytra relatively short, not reaching beyond the third abdominal segment, broad, with its greatest width about the middle, apex rounded. Fig. 53.

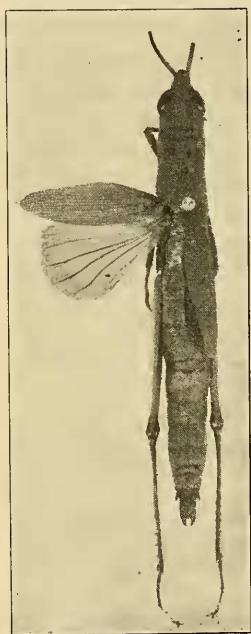


Fig. 53. *Mitricephala obtusa*
nov. sp. ♀. type.



Fig. 54. *Mitricephala gracilis*
nov. sp. ♀ type.

	♀
Lenght of body	45 mm.
» » pronotum	7.5 »
» » elytra	15 »
» » hind femora	16 »

Only known from Sumatra.

Sumatra: 1 ♀ Perdagangan (coll. Mjöberg). "Creeping very slowly along the trunks of trees".

Mitricephala gracilis nov. sp.

General coloration brown (discoloured by alcohol). Antennae brown, darker apically, the apical joints paler.

Lower part of lateral lobes of pronotum with a yellow band that in front is continuing on the cheek and runs to the lower part of the posterior margin of the eye and behind is continuing on the epimerae of meso- and metathorax.

Hind tibiae with the inner margin blackish brown. Fig. 54.

	♀
Length of body	37 mm.
» » antennae	11.5 »
» » pronotum	7.5 »
» » elytra	16 »
» » hind femora	15 »

Only known from Sumatra.

Sumatra: 1 ♀ Medan (coll. Mjöberg).

Mitricephala vittata BOL. ¹⁾

1898. *Mitricephala vittata* BOL. Ann. mus. Civ. Stor. Natur. Genova, Ser. 2^a, Vol. XIX (XXXIX), p. 91.

General coloration olivaceous-green and brown. Antennae reaching about to the middle of pronotum, olivaceous-green, with the two apical joints yellow. Fastigium of vertex relatively broad, with the sides distinctly narrowing in front, apex rounded. Head olivaceous-green or brownish, with a yellow fascia running from the lower part of the hind margin of the eye, across the lower part of the lateral lobes of pronotum, to the sides of meso- and metathorax. Pronotum entirely olivaceous-green, except the yellow fascia on the lower part of lateral lobes.

Elytra green, with anterior and posterior margin subparallel; apex acutely rounded. Wings hyaline or slightly

¹⁾ The type, being preserved in alcohol and dried afterwards, I shall give the description of a fully coloured specimen now at hand. It is not impossible that the two foregoing species are conspecific with *vittata*, but more material is wanted, to verify this suggestion.

infumated. Abdomen brown. Anterior legs green or brown. Hind femora green, inner surface brown, inner knee lobe black. Hind tibiae bluish brown or brownish-green with some pale spots, spines brown with black tips. Hind tarsi brown. Fig. 55.



Fig. 55. *Mitricephala vittata* BOL.
♀ type. Isles of Mentawai.

	♀
Length of body	40—42 mm.
» » antennae	11 »
» » pronotum	8— 8.5 »
» » elytra	16—17 »
» » hind femora	16—16.5 »

This species is known from the Mentawai-Islands.

Sumatra: 1 ♀ Tandjong Morawa, Serdang (N.O. Sumatra), (Dr. B. HAGEN); 1 ♀ Lubuksikaping 1926 (E. JACOBSON).

Pareuthymia nov. gen.

Size medium or large, body stout and robust, rugosely or coarsely punctured. Antennae filiform, reaching beyond the posterior margin of pronotum, in the apical half somewhat flattened. Head broad, face almost perpendicular, frontal ridge not projecting between the antennae, coarsely punctured, margins subparallel, below the median ocel narrowed. Fastigium of vertex short, forming a rounded arch with the frontal ridge and not separated from it, finely punctured or impunctate, its general form more or less hexagonal, margins obtuse with an indication of temporal foveolae, its surface slightly concave. Occiput convex.

Eyes strongly prominent sideways, oval. Interocular distance about as broad as one and a half time the frontal ridge. Lateral facial carinae nearly straight. Face and cheeks coarsely but not densely punctured, the lower margin of the cheek incrassate, bisinuate. Pronotum perfectly rounded, scarcely widened posteriorly, without any trace of lateral carinae, with a faint indication of a median carina, anterior margin with a rounded triangular incision in the middle, posterior margin rounded; transverse sulci distinct, first transverse sulcus only indicated on the disc, arcuate, second and third sulcus both on the disc and on the lobes, nearly reaching the lower margin of lateral lobes, third sulcus a little behind the middle of pronotum, with a rounded triangular projection in the middle; submarginal sulcus near the anterior margin both on the disc and on the lobes; lateral lobes of pronotum about as long as broad, lower margin slightly concave, anterior angle acute, posterior angle broadly rounded. Episternum of prothorax large, decurved.

Prosternal tubercle short, quadrate, incrassate, apex truncate and gradually sloping backwards. Mesosternal lobes about as broad as long, their inner margins rounded, meeting each other in the middle ♂ or separated by an x-shaped interspace ♀, metasternal lobes contiguous. Elytra and wings fully developed, reaching the apex of the abdomen. Elytra with the anterior and posterior margin subparallel or slightly widened apically, apex rounded. Wings about as long as the elytra. Anterior legs short and thick.

Hind femora not reaching the apex of the abdomen, compressed laterally, the inner upper and lower outer area very small, upper keel finely serrate, the other keels smooth; knee lobes obtusely rounded. Hind tibiae pilose, slightly curved, not expanded apically, with 20 inner spines and 10 outer spines, with distinct outer apical spine. Hind tarsi reaching the middle of hind tibia, third joint shorter than the two others together. Abdomen in the male gradually thickened apically, last segments very broad, apex recurved.

Supra-analplate of male very broad, quadrangular, slightly widened posteriorly, sides straight, posterior margin straight; in the apical half with a median sulcus and curved obtuse ridges; cerci strongly inflated basally, with an obtuse short tubercle at the very base outwardly, strongly recurved, apical half compressed laterally, apex rounded; subgenital plate strongly recurved, apex truncate, posterior margin slightly concave.

Supra-analplate of female triangular, apex rounded; with a median sulcus from the base to the apex. Cerci short, conical, apex acute. Valves of ovipositor long, straight, margins smooth, apex slightly curved, obtuse. Subgenital plate longer than broad, posterior margin with a rounded triangular projection in the middle.

Genotype: *Pareuthymia fusca* nov. sp.

Key to the species.

1. General coloration reddish brown. Hind femora reddish brown, without black fasciae ***fusca*** nov. sp.

1.1. General coloration brown with olive green spots all over. Hind femora with the inner area red or reddish with a blackish band in the apical half. . . . ***mirabilis*** nov. sp.

Pareuthymia fusca nov. sp.

General coloration reddish brown. Antennae reddish brown, darker apically. Head and pronotum reddish brown. Elytra reddish brown, wings hyalinous, infumated in front and apically. Abdomen yellowish brown, anal segment with blackish brown spots or stipes. Hind femora reddish brown,

kneelobes black. Hind tibiae reddish brown, spines reddish brown with black tips. Hind tarsi yellowish brown. Fig. 56.



Fig. 56. *Pareuthymia fusca* nov. sp. ♂ type.

Length of body	38	♂ mm.
„ „ pronotum	6	„
„ „ elytra	28	„
„ „ hind femora	18	„

This species is only known from Sumatra.

Sumatra: Pasir Ganting, W. Coast, June 1914, 1 ♂.

***Pareuthymia mirabilis* nov. sp.**

General coloration brown, reddish brown, with irregular, round, olive green spots or stripes all over. Head and pronotum reddish brown with olive green spots; on the vertex these spots and stripes are regularly deposited to a definite figure. Elytra olive green, principal veins and veinlets pur-

plish red, apical half of elytra with indefinite, faintly indicated brown spots more or less tessellate.

Wings pale greenish blue, with the apex and the posterior margins infumate. Hind femora with the outer side reddish brown with indefinite olive green markings and round spots along the carinae; the inner side red with a broad black



Fig. 57. *Pareuthymia mirabilis* nov. sp. ♀ type.
The antenna of this specimen was paste up on it, but is surely not the original one!

transverse band in the apical half, and a small black spot on the inner upper area in the basal half; knee on the inner side blackish. Hind tibiae brown from the outer, blackish from the inner side and from beneath, with a brown postbasal spot from the inner side, spines brown or yellowish brown with black tips. Hind tarsi yellowish brown, with a blackish stripe from above, on each joint. Fig. 57.

	♀
Length of body	50 mm.
„ „ pronotum	8 „
„ „ elytra	33 „
„ „ hind femora	23 „

This species is only known from Sumatra.

Sumatra: Indragiri 1 ♀.

Lucretilis.

1878. *Lucretilis* STÅL. Bihang Svensk. Akad. Handl. V (4), pp. 41, 85.

Body slender, size medium, rugosely punctured. Antennae very long, slender, filiform, reaching as far as the middle of abdomen or nearly so. Head obtusely conical, not projecting above the level of pronotum; upper part of frontal ridge in profile projecting a little beyond the eyes and raised, gradually lowered towards the middle and sulcate; the lower part obsolete. Lateral facial carinae obsolete.

Frons and cheeks impresso-punctate. Fastigium of vertex sloping, narrowed between the eyes, forming with the frontal ridge a more or less rounded angle: in the middle interrupted by a transverse sulcus between the eyes; rounded triangular apically, margins obtuse. Vertex convex with two rows of impressed points.

Pronotum cylindrical, disc slightly convex, median and lateral keels obsolete, the principal sulcus far behind the middle, anterior margin rounded, posterior margin obtusely angulate. Lateral lobes of pronotum longer than wide, lower margin slightly ascendant anteriorly, anterior and posterior angle rounded.

Prosternal tubercle strongly transverse, broad, with the apex broadly emarginate or truncate. Sternum sparsely punctured, anterior margin rounded; mesosternal lobes about as long as broad; inner margin rounded, their interspace subquadrate, narrowing anteriorly; metasternal lobes with their inner margins meeting each other in the middle, subcontiguous.

Elytra short, reaching to the middle of hind femora, apex

more or less truncate, anterior and posterior margin subparallel; almost entirely with longitudinal veins; wings subcycloid, about as long as elytra. Hind femora rather strong, their keels serrate, kneelobes pointed. Hind tibiae rounded, slightly curved, not expanded; armed with 9 spines inwardly, including the apical spine, and 6—7 spines outwardly, with outer apical spine.

Hind tarsi reaching the middle of hind tibia; third joint a little shorter than the two basal joints together. Supra-analplate of the male triangular, longer than its basal width, apex rotundate, with a median sulcus in the basal half. Cerci about as long as the supra-analplate, straight, gradually narrowing apically, with apex obtusely pointed. Subgenital plate short, obtusely rounded.

Supra-analplate of the female long, with a median sulcus in the basal half. Cerci short, straight, apex pointed. Valves of ovipositor short. Subgenital plate elongate.

Genotype: *Lucretilis taeniata* STÅL.

***Lucretilis taeniata* STÅL.**

1878. *Lucretilis taeniata* STÅL. Bihang Svensk. Akad. Handl. V (4), p. 85, n. 1.

This species is unknown to me. STÅL gives the following description: „Diluteol ivaceo-virescens, in capite thoraceque olivaceo-flavescens; antennis-nigris; costa, vittis duabus ante medium positis, ad ocellum incipientibus, hinc antrorsum divergentibus, nec non macula laterali media frontis, vittis duabus postocularibus genarum, vitta verticis anterieus abbreviata, vittis tribus pronoti, una dorsali, unaque in lobis lateralibus, nec non horum margine angusto exteriori, tibiis tarsisque posticis obscure olivaceis vel fusco-olivaceis; limbo lato costali elytrorum alisque obscure fuscis; geniculis posticis apiceque abdominis rufotestaceis; alis fuscis. ♂ Long. 20 mill.

♂ Segmentum dorsale ultimum apice sensim sat fortiter emarginatum, margine apicali prope medium utrimque in lobulum obtusissimum ampliato; lamina supra-analis triangularis, ante medium sulcata; cerci mediocres, sensim acuminati; lamina subgenitalis brevis, obtusa; oculi sat convexi.”

Only known from Sumatra.

Sumatra: Sumatra (without exact locality). Type in Museum of Vienna.

Stolzia nov. gen.

Size medium, body slender, rugosely punctured. Antennae filiform, long, reaching to the middle of hind femora. Face slightly reclinate, frontal ridge projecting a little between the antennae, below the ocellum narrowed and sulcated, subobliterated near the clypeus.

Eyes strongly prominent sideways and upwards, rounded triangular, interocular distance about as broad as the frontal ridge. Fastigium of vertex sloping, forming an obtuse angle with the frontal ridge, about as long as it is broad, widened forwards and narrowed posteriorly; its surface not impressed, margins obtuse, apical margin rounded. Occiput without median carinula, convex. Lateral facial carinae subobliterate, only distinct in the lower part. Face and the lower part of cheeks strongly and rugosely punctured.

Pronotum cylindrical, median and lateral keels absent; anterior margin rounded, truncate in the middle, posterior margin rounded; first transverse sulcus only indicated on the disc, second and third both on the disc and on the lobes, third sulcus distinctly behind the middle; lateral lobes longer than deep, with the lower margin ascendant from its middle to the anterior margin; anterior angle obtusely rounded, posterior angle rounded.

Prosternal tubercle short, straight, conical, apex pointed. Mesosternal lobes about as long as broad, their inner margins straight, their interspace about as broad as the lobes, distinctly widened posteriorly. Metasternal lobes separated by a small interspace, their inner margins nearly touching each other behind the foveolae. Elytra and wings short, extending a little beyond the middle of abdomen.

Hind femora relatively stout, keels finely serrate, upper keel terminating in a sharp point, arc. genic. int. and ext. sharply pointed. Hind tibiae slightly curved, not expanded apically, with 9 inner and 9 outer spines, with distinct outer apical spine. Hind tarsi short, reaching the middle of hind

tibia, third joint nearly as long as the two others together, second joint distinctly shorter than the first.

♂. Abdomen with the apex recurved and somewhat thickened. Supra-analplate of male subquadrate, posterior margin rounded, with curved ridges and tuberosities. Cerci erected, longer than supra-analplate, broad, compressed laterally, apex obliquely truncate, on one side pointed. Subgenital plate strongly recurved, apex rounded. ♀ unknown.

Genotype: *Stolzia rubromaculata* nov. sp.

***Stolzia rubromaculata* nov. sp.**

General coloration blackish brown. Antennae reddish brown, darker apically. Apical joints yellowish. Head yellowish, with a black stripe beginning between the antennae, obliquely crossing the face, running across the lower part of the cheeks, on to the lower part of the lateral lobes of pronotum. Fastigium of vertex yellowish-brown, vertex blackish, on each side with a yellowish-brown stripe, running from the posterior margin of the eye, along the sides of the disc of pronotum on to the elytra.

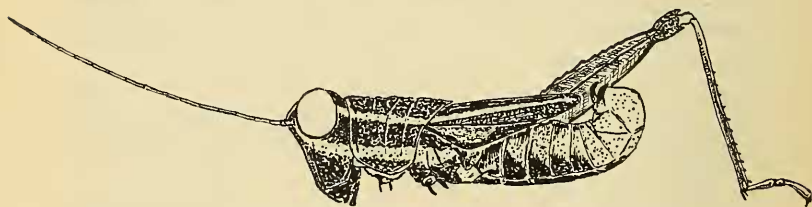


FIG. 53

Stolzia rubromaculata nov. gen. e. spec. ♂.

Pronotum blackish-brown, disc on each side with a yellow stripe, the lower part of lateral lobes black, bordered with a broad yellowish band from above.

Epimera of meso- and metathorax with a yellow spot. Elytra blackish brown with a yellow stripe along the anal vein and a bright red spot in the anterior area. Sternum and abdomen brownish, abdomen on the sides with a row of blackish spots. Cerci blackish brown for the greater part. Anterior legs brownish-green. Hind femora yellowish green,

with a pale yellowish praegenicular ring, that posteriorly is bordered with blackish brown, knee bright red. Hind tibiae olive-green, the base red, postbasal ring yellow, spines with black tips. Hind tarsi reddish. Fig. 58.

		♂
Length of body	13.5	mm.
„ „ pronotum	3.5	„
„ „ elytra	5	„
„ „ hind femora	9	„

This species is only known from Sumatra.

Sumatra: Solok, 1913 (P. O. Stolz) 1 ♂.

Oxya.

1831, *Oxya*, Serville, Ann. Scienc. Nat. XXII pp. 264, 286.

Body slender or more robustly built, size medium, finely rugose and punctured. Antennae filiform, reaching as far as the hind margin of pronotum. Face slightly reclinate; frontal ridge not projecting between the antennae, sulcate throughout, its margins parallel or nearly so, approximated at the fastigium. Fastigium of vertex moderately sloping, forming with the frontal ridge a distinct acute angle; its surface slightly concave, apex rounded triangular, margins very obtuse. Occiput convex. Lateral facial carinae straight or nearly so.

Pronotum cylindrical, slightly widened posteriorly; lateral keels absent, median keel feebly indicated, before the typical sulcus often scarcely perceptible. Anterior margin rounded, posterior margin angulately rounded. First transverse sulcus only faintly indicated on the disc, second and third sulcus distinct both on the disc and on the lobes, intersecting the median keel. Disc of pronotum more coarsely punctured, near the anterior margin and the metazona more finely punctured. Third sulcus distinctly behind the middle.

Lateral lobes not much deeper than long, with a well developed submarginal sulcus near the anterior margin; the lower margin ascendant from its middle to the anterior margin, anterior angle very obtuse, posterior angle a little more than 90°; rugulose throughout except in the upper

part of prozona where there are two glittering and impunctate oval spaces.

Prosternal tubercle conical, slightly bent backwards, more or less pointed. Mesosternal lobes about as long as broad, their interspace longer than broad, widened posteriorly. Metasternal lobes contiguous. Elytra and wings abbreviated or fully developed; wings hyalinous. Anterior margin of elytra often serrate. Abdomen with tergites normal or pleural margin of 2-4^e tergite posteriorly acutely dentate.

Hind femora with upper keel acutely dentate or obtuse. Hind tibiae strongly expanded in the posterior half with the margins sharp; seen from above and in profile slightly curved, with 10 spines inwardly and 8 spines outwardly, with very distinct outer apical spine; all spines in a regular row. Hind tarsi short, the first joint expanded and shorter than the two other together; not reaching the middle of hind tibia.

Supra-analplate in the male triangular, apex obtusely pointed, with a median sulcus basally or all along. Cerci conical or broad, slightly curved, more or less pointed or bidentate. Subgenital plate short, conical, apex obtuse.

Supra-analplate in the female triangular, apex obtusely pointed, with a median sulcus basally. Cerci conical, slightly curved, more or less pointed. Valves of ovipositor dentate, apex strongly recurved. Subgenital plate elongate, posterior margin variavel, smooth or dentate; plate itself smooth or with keels.

Genotype: *Oxya hyla* SERVILLE.

Key to the species ♀♀. ¹⁾

1. Posterior margin of subgenital plate smooth, without teeth.

2. Elytra and wings short, not reaching beyond the middle of hind femora. Hind tibiae red. Valves of the ovipositor regularly dentate **diminuta** WALK.

2.2. Elytra and wings long, reaching as far as or behind the apex of hind femora. Valves of the ovipositor strongly dentate with small and great teeth alternatively. **intricata** STÅL.

¹⁾ Till now, it is impossible to tabulate the ♂♂.

1.1. Posterior margin of subgenital plate dentate, disc of subgenital plate with two keels.

2. Pleural margin of 2—4 tergites acutely dentate . . .
 **chinensis** THUNB.

Pleural margin of all tergites normal, not dentate . . .
 **acuminata** WILL.

***Oxya diminuta* WALKER.**

1871. *Oxya diminuta* WALKER, Cat. Derm. Salt. B. M. V. Suppl. p. 64.

1893. *Oxya rufipes* BRUNNER VON WATTENWYL, Ann. Mus. Civ.-Stor. Nat. XXXIII, p. 153.

General coloration brown or yellowish-brown. Antennae brown or yellowish, darker apically. Head yellowish, brown from above, with blackish-brown lateral postocular fasciae, a brown stripe on the cheeks, running from the lower angle obliquely backwards, but not reaching the hind angle of the cheeks.

Pronotum brown, with blackish brown lateral fasciae; lateral lobes of pronotum yellow. Sides of meso- and meta-thorax yellow or greenish. Elytra brown reaching the middle of hind femora. Wings a little shorter than elytra, hyalinous or infumated in front. Anterior legs brown, yellowish brown or green. Hind femora brown or yellowish brown, sometimes with the externo-median area greenish; the interno-median area with two dark spots, one in the middle and the other near the knee, these spots sometimes absent.

Hind tibiae always red (yellowish by discoloured specimens). Spines red with black tips. Hind tarsi red or reddish-brown. Abdomen yellowish-brown beneath Tergites normal. Valves of the ovipositor regularly dentate. Fig. 59.

Forma macroptera WILL. Elytra and wings reaching as far as the apex of hind femora.

	♂	♀
Length of body	14—17 mm.	17—22 mm.
„ „ pronotum	3—4.5 „	5—6 „
„ „ elytra	7.5—8 „	9—11 „
„ „ „ forma macroptera	13 „	17 „
„ „ hind femora	10—11 „	13—14 „

This species is ranging from Annam, Cochinchina, Siam, Malay-Peninsula and Malacca to Sumatra.

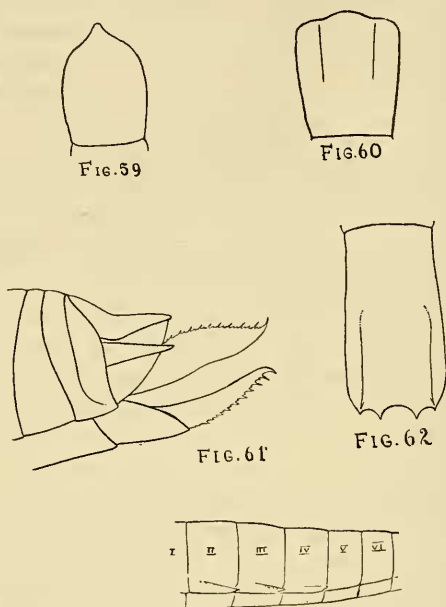


FIG. 63

Fig. 59. *Oxya diminuta* WALK. Subgenital plate. After WILLEMSE ♀. — Fig. 60. *Oxya intricata* STÅL. Subgenital plate. After WILLEMSE ♀. — Fig. 61. *Oxya intricata* STÅL. Ovipositor. After WILLEMSE ♀. — Fig. 62. *Oxya chinensis* THUNB. Subgenital plate. After WILLEMSE ♀. — Fig. 63. *Oxya chinensis* THUNB. ♀.

Sumatra: Padang, Anai Kloof, Fort de Kock, Padang Taraap (E. JACOBSON), Silago, Deli, Solok, Muna Labu, Tandjong Morawa Serdang, Surul, Siboga, Medan, Brastagi.

Forma macroptera WILL. Brastagi 2 ♂♂ (MJÖBERG).

Oxya intricata STÅL.¹⁾

1860. *Acridium* (*Oxya*) *intricatum* STÅL. Freg. Eug. Resa. Ins. Orth. p. 335.

¹⁾ Vide B. P. UVAROV (1903) p. 45.

1925. *Oxya insularis* WILLEMSE. Tijds. v. Entom. Deel 68, p. 11, 21.

1925. *Oxya insularis* WILLEMSE. Tijds. v. Entom. Deel 68, p. 12, 34.

General coloration brown, yellowish brown or greenish, from above often purple-reddish. Antennae brown or reddish brown, darker apically. Head brown or yellow, with dark lateral postocular fasciae. Pronotum yellow, yellowish-green or purple reddish with blackish brown lateral fasciae; lateral lobes of pronotum yellowish.

Elytra long, reaching far behind the apex of hind femora, brown, yellowish brown, area analis yellow, greenish or purple-reddish. Wings hyalinous. Anterior legs yellowish brown or brown. Hind femora reddish brown or yellowish brown. Hind tibiae yellowish brown or greenish. Spines yellow with black tips. Tergits normal. Valves of ovipositor strongly dentate with small and great teeth alternatively.

Subgenitalplate in the female longer than broad, posterior margin without teeth, disc of subgenitalplate with two parallel keels. Fig. 60, 61.

	♀
Length of body	24—29 mm.
„ „ pronotum	5—6.5 „
„ „ elytra	19—27.5 „
„ „ hind femora	13—19 „

This species is ranging from China, Formosa, Phillipines, Celebes, Malacca to Sumatra.

Sumatra: Padang, Fort de Kock, Gunung Singgalang (E. JACOBSON). Deli, Solok, Surul, Medan, Brastagi, Kotatjane.

***Oxya chinensis* THUNB. ¹⁾**

1815. *Gryllus chinensis* THUNB. Mém. Acad. Pétersb. V, p. 253.

1870. *Acridium sinense* WALKER. Cat. Derm. Salt. B. M. IV, p. 268.

1873. *Oxya chinensis* var. *a.* STÅL. Rec. Orth. I, p. 82.

¹⁾ Vide B. P. UVAROV (103) p. 45.

General coloration brown or yellowish brown. Antennae brown, darker apically.

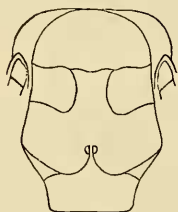


FIG. 64



FIG. 65



FIG. 66



FIG. 67

Fig. 64. *Oxya chinensis* THUNB. Meso- and metasternum ♀. — Fig. 65. *Oxya acuminata* WILL. Subgenital plate. After WILLEMSE ♀. — Fig. 66. *Oxya acuminata* WILL. After WILLEMSE ♀. — Fig. 67. *Gesonia mundata* WALKER. Hind tibia ♀.

Head yellowish brown with blackish brown lateral postocular fasciae sometimes bordered with yellow. Pronotum brown or greenish brown, with blackish brown lateral fasciae; lateral lobes of pronotum yellow. Elytra reaching as far as or beyond the apex of hind femora, brown or greenish brown, area analis greenish brown, area analis greenish or yellowish brown. Wings as long as elytra, hyalinous. Anterior legs yellowish brown or brown. Hind femora brown, greenish or reddish. Hind tibiae bluish

or brown, spines yellow with black tips. Pleural margin of 2—4 tergites in the female posteriorly dentate. The teeth on the 3^e and 4^e tergite sometimes subobsolete or only little indicated. Valves of ovipositor regularly dentate.

Subgenital plate in the female longer than broad, posterior margin with two, fairly wide separated, teeth and some small ones laterally. Disc of subgenital plate with two parallel keels, bearing a sharp teeth or a row of teeth (var. *straminea* WALK.) near the posterior margin. Fig. 62—64.

	♀
Length of body	22—27 mm.
„ „ pronotum	5—6.5 „
„ „ elytra	18—26 „
„ „ hind femora	13—18 „

This widely distributed species is ranging from Japan and China all over to Australia and Hawaii Islands.

Sumatra: Padang, Anai Kloof, Fort de Kock, Tandjung-gadang (E. JACOBSON) Surul, Silago, Solok, Matur, Pladju, Balighe, Kotatjane.

***Oxya acuminata* WILL.**

1925. *Oxya acuminata* WILLEMSE. Tijds. v. Entom. Deel 68, p. 13, 43.

General coloration brown or yellowish green. Antennae brown or yellowish, darker apically. Head yellowish green, with brown lateral postocular fasciae. Fastigium of vertex sloping, forming with the strongly reclinate face a more or less acute angle.

Pronotum brown or yellowish brown, with blackish brown lateral fasciae; lateral lobes yellowish.

Elytra reaching as far as the apex of hind femora, yellowish green. Wings as long as elytra, hyalinous.

Anterior legs yellowish. Hind femora yellowish. Hind tibiae bluish green, spines yellow with black tips.

Tergites normal. Anterior margin of elytra in the female strongly serrate basally. Valves of ovipositor dentate, sometimes alternatively with short and long teeth.

Subgenital plate in the female longer than broad, posterior margin with two small teeth in the middle. Disc of subgenital plate with two keels, that are serrate near the posterior margin. Fig. 65, 66

	♀
Length of body	25—27 mm.
„ „ pronotum	5.5 „
„ „ elytra	24 „
„ „ hind femora	15 „

This species was only known from Malabar and Ceylon.

Sumatra: 1 ♀ Dolok Baru (coll. Deutsch. Entom. Instit.),
1 ♀ Lubuksikaping 1926 (E. JACOBSON).

***Gesonía*.**

1878. *Gesonía* STÅL, Bihang Svensk Akad. Handl. V, (4) p. 47.

Body slender, size medium, finely rugose and punctured.

Antennae filiform, reaching behind the hind margin of pronotum. Face reclinate, frontal ridge not projecting between the antennae, sulcate throughout, its margins parallel or subparallel.

Fastigium of vertex moderately sloping, forming with the frontal ridge a distinct acute angle; its surface slightly concave, apex rounded triangular, margins obtuse. Occiput convex. Lateral facial carinae straight or nearly so. Pronotum cylindrical, widened posteriorly; lateral keels absent, median keel only distinct in the metazona. Anterior margin rounded, posterior margin rounded. First transverse sulcus only indicated on the disc, second and third sulcus distinct both on the disc and on the lobes; third sulcus distinctly behind the middle.

Lateral lobes longer than deep, with a well developed submarginal sulcus near the anterior margin; the lower margin ascendant from its middle to the anterior margin, fore angle obtuse, hind angle rounded; punctate throughout, in the upper part with two irregular glittering spaces.

Prosternal tubercle broad, short, conical, bent backwards, apex rounded. Mesosternal lobes about as long as broad, their inner margin rounded, their interspace about as long as broad, widened posteriorly. Metasternal lobes subcontiguous. Elytra and wings well developed, extending beyond the apex of hind femora. Wings hyalinous or slightly infumated. Keels of hind femora smooth. Hind tibiae strongly expanded in the posterior half with the margins sharp; seen from above and in profile slightly curved; armed with 7 spines outwardly, with distinct outer apical spine, spines in a regular row and 8 spines inwardly, the distance between the last two spines being twice or thrice the distance of the basal ones. Hind tarsi short, not reaching the middle of hind tibiae, the first joint expanded and somewhat shorter than the two other together.

Supra-analplate in the male triangular, apex obtusely pointed, with a median sulcus from the base to the apex. extending beyond the supra-analplate, conical, straight or bent near the apex, with apex pointed. Subgenital plate short, conical, apex obtuse.

Supra-analplate in the female triangular, apex obtuse. Cerci short, conical, apex obtuse.

Valves of ovipositor strongly dentate, apex with a strong tooth and recurved. Subgenitalplate longer than broad, posterior margin with a triangular median projection or broadly rounded.

Genotype: *Acridium (Oxya) punctifrons* STÅL.

Only represented by one species.

***Gesonia mundata* WALKER.**

1870. *Heteracris mundata* WALKER, Cat. Derm. Salt. B. M. IV, p. 672, n. 37.

1898. *Gesonia sanguinolenta* BR. v. W. Abh. Senckenb. naturf. Gesellschaft Bd. XXIV. Heft. II, p. 198. (in litt).

1903. *Gesonia punctifrons* STÅL var. *sanguinolenta* KRAUSS. Zoolog. Forsch. Reisen in Australien, Bd. V, p. 118.

1909. *Quilta pulchra* REHN, Bull. Amer. Mus. of Nat. Hist. Vol. XXVI, p. 190.

1920. *Gesonia recticercus* SJÖSTEDT, Arkiv f. Zool. Bd. 12. No. 20. p. 21.

General coloration yellowish-green. Antennae yellowish-green, darker apically. Head yellowish-green; margins of fastigium of vertex blackish brown; with blackish-brown lateral postocular fasciae. Pronotum yellowish-green, with blackish-brown lateral fasciae. Elytra brown, with a dark stripe along the anterior margin; area analis yellowish-green. Wings slightly infumated, often with bluish tinge basally. Anterior legs yellowish-green, or more orange red.

Hind femora yellowish-green or orange red, knee always blackish brown. Hind tibiae bluish-green, yellowish-green or reddish orange (var. *sanguinolenta* BR. v. W.), the extreme tip always darker, more yellowish-brown. Spines yellowish-green with black tips. Hind tarsi yellowish-green or reddish. Sternum and abdomen yellowish from beneath, abdomen brownish-black from above. Teeth of ovipositor brownish-black. Fig. 67.

	♂	♀
Length of body	16—18.5 mm.	19.5—21 mm.
„ „ pronotum	3—4 „	4.5—4.7 „
„ „ elytra	16—20 „	20—22.5 „
„ „ hind femora	9—11 „	11—12 „

This species is ranging from Australia, New-Guinea, Moluccas, Formosa to Malay Peninsula and Sumatra.

Sumatra: Padang, Fort de Kock (E. JACOBSON) Medan, Sungei Rampah.

Caryanda.

1878. *Caryanda* STÅL. Bihang Svensk Akad. Handl. V (4), p. 47.

Body slender or more robust, size medium, rugosely punctured and pilose. Antennae filiform, reaching as far as or beyond the hind margin of pronotum. Face slightly reclinate, frontal ridge not projecting between the antennae, shallowly sulcate and coarsely punctured, its margins parallel or nearly so, subobliterate near the clypeus. Lateral facial carinae straight. Fastigium of vertex moderately sloping, forming with the frontal ridge a rounded or more acute angle; its surface slightly concave, apex broadly rounded, margins very obtuse. Occiput convex.

Pronotum cylindrical; lateral keels absent, median keel feebly indicated; anterior margin rounded or with a little incision in the middle, posterior margin straight or shallowly excised. First transverse sulcus only faintly indicated on the disc, second and third sulcus both on the disc and on the lobes; third sulcus far behind the middle.

Lateral lobes about as deep as long, with a well developed submarginal sulcus near the anterior margin; the lower margin ascendant from its middle to the anterior margin, fore angle very obtuse, hind angle obtuse also; rugulose throughout except two irregular glittering spaces in the upper part. Prosternal tubercle conical, straight, apex more or less pointed.

Mesosternal lobes broader than long or about as long as broad, their inner margin rounded; their interspace longer than broad, widened posteriorly; metasternal lobes sub-

contiguous. Elytra scale-like, lateral, reaching as far as the hind margin of the second tergite, apex rotundate. Wings rudimentar.

Hind femora with the keels smooth; kneelobes acutely dentate. Hind tibiae round, not expanded apically, seen from above and in profile slightly curved, with 10 spines inwardly and 8 spines outwardly, with distinct outer apical spine. Hind tarsi short, not reaching the middle of hind tibia, first and second joint together somewhat longer than the third one.

Supra-analplate in the male triangular, apex obtuse, with a median impression basally and a round impression at the apex. Cerci conical, apex more or less pointed or broad with the apex angulately incised. Subgenitalplate short, conical, apex obtuse. Supra-analplate in the female triangular, apex rotundate. Cerci short, conical, not surpassing the supra-analplate. Valves of ovipositor nearly straight or slightly curved, margins finely dentate. Subgenitalplate longer than broad, posterior margin slightly rounded or obtusely excised.

Genotype: *Acridium (Oxya) spurium* STÅL.

Key to the species.

1. Hind tibiae yellow or red. Length of body ♂ 16, ♀ 21—24 mm. **spuria** STÅL.

1.1. Hind tibiae bluish-green or blue. Length of body ♂ 12, ♀ 13.5 mm. **pumila** WILL.

Caryanda spuria STÅL.

1860. *Acridium (Oxya) spurium* STÅL. Eugenies Resa. Orth. p. 336, No. 88.

General coloration yellowish brown or green. Antennae reddish brown, darker apically. Head yellowish-green with blackish-brown lateral postocular fasciae, from above sometimes brownish green or with pale irregular spots on the cheeks. Pronotum yellowish-green or brownish with blackish brown lateral fasciae; the sulci often blackish brown; anterior and posterior margin slightly excised in the middle. Sides of meso- and metathorax greenish or brownish-yellow,

the sutures blackish-brown. Elytra green or brownish with the posterior half green, not reaching beyond the hind



Fig. 68. *Caryanda spuria* STAL ♂ ♀.

margin of the 2^e tergite. Anterior legs yellowish brown or reddish. Hind femora brown or greenish brown, knee blackish-brown, with a greenish, faintly limited praegenicular ring. Hind tibiae bright red, spines reddish with black tips. Hind tarsi reddish. Abdomen from beneath reddish brown, especially near the apex. Fig. 68.

	♂	♀
Length of body	16 mm.	21 - 24 mm.
» » pronotum	3.5 »	4.5 - 5.5 »
» » elytra	3 »	4 »
» » hind femora	10 »	12 - 14 »

This species is ranging from China, Java to Sumatra.

Sumatra: Surul, Pulu Weh.

***Caryanda pumila* WILL.**

1924. *Caryanda pumila* WILLEMSE, Tijds. v. Entom. Deel LXVII, p. 157, 158.

General coloration yellowish-green. Antennae yellowish-green, darker apically. Head yellowish-green, face with irregular olive-green dots, cheeks with one or two oblique blackish stripes; blackish-brown lateral postocular fasciae from above bordered with yellow; vertex greenish.

Pronotum greenish with blackish-brown lateral fasciae from above bordered with yellow; lateral lobes yellowish, lower margin in the middle with a blackish-brown dot. Episternum of meso- and metathorax blackish-brown. Elytra blackish

brown, with a yellowish stripe along the posterior margin; not reaching beyond the hind margin of the 2^e tergite. Anterior legs olive-green with blackish stripes or dots. Hind femora yellowish-green, outer area olive green, arcus genicul. blackish-brown. Hind tibiae bluish-green, spines yellowish with black tips. Sternum and abdomen from beneath yellowish green with irregular darker spots; abdomen from above olive green with two blackish-brown bands on the sides, the superior band being the most largest. Valves of ovipositor finely dentate.

	♂	♀
Length of body	12 mm.	13.5 mm.
" " pronotum	3.5 "	3.5 "
" " elytra	2.5 "	2.5 "
" " hind femora	8.5 "	9.5 "

This species is only known from Sumatra.

Sumatra: Sungai Kumbang VIII 1915 (E. JACOBSON).

Tauchira ¹⁾.

Tauchira STÅL, Bihang Svensk. Akad. Handl. V (4) p. 48, 1878.

Bua BOLIVAR, Trab. Mus. Nac. Cienc. Nat. Ser. Zool. num. 34, p. 11, 31, 1918.

Body slender or more robust, size medium, rugosely punctured. Antennae filiform, reaching as far as or beyond the hind margin of pronotum. Face reclinate, frontal ridge not projecting between the antennae or scarcely; sulcate and coarsely punctured, its margins subparallel or slightly divergent. Lateral facial carinae nearly straight.

Fastigium of vertex subhorizontal, forming with the frontal ridge an acute angle, its surface with a small median carinula, apex rounded, margins obtuse. Occiput at a higher level than the fastigium, convex.

Pronotum cylindrical, somewhat constricted in the middle

¹⁾ I had the opportunity of studying the types of *Tauchira polychroa* STÅL and *Tauchira Buæ* BOL. The latter species was in 1918 placed in a new genus *Bua* by BOLIVAR. I can find no appreciable differences between the genera *Tauchira* and *Bua* and considers them as congeneric.

1.1. Hind femora with olive-green or more blackish bands on the outer area. Hind tibiae olive-green or brownish with a distinct yellow praegenicular ring

. . . . **Buae** BOLIVAR

Tauchira abbreviata SERVILE.

1839. *Acridium abbreviatum* SERVILE, Ins. Orth. p. 678.

This species is unknown to me. SERVILE gives the following description.

„Corps luisant, d'un vert jaunâtre. Tête plus forte, plus élevée que dans les autres espèces; son dessus ayant derrière chaque oeil, une bande noire luisante, se continuant sur les côtés du prothorax et le long du bord externe des élytres; d'égale largeur partout. Prothorax vert; sillons transversaux assez visibles; carène dorsale nulle; côtés rabattus ayant, outre la large bande noire, une bandelette longitudinale étroite, noire, luisante, placée près du bord. Ces flancs de la poitrine ont une ligne oblique, noire, irrégulière, partant de la bande large du prothorax. Elytres avortées, n'atteignant que la moitié de l'abdomen, vertes, largement marginées de noir luisant au bord externe. Ailes transparentes, avortées comme les élytres. Abdomen et dessous du corps, jaunâtres. Les quatre premières pattes vertes, cuisses d'un rouge capucine, vertes au bout. Cuisses postérieures vertes, jaunâtres à leur face interne, et aux côtés supérieur et inférieur de l'externe; jambes de derrière peu dilatées au bout, bleuâtres; épines de cette couleur. Tarses postérieurs grands; leur longueur égalant la moitié de celle des jambes. Antennes longues; premiers articles verts; les suivants rouges, le reste obscur, extrémité verte. Mâle. Long. 6 lig.'".

This species is originally described from Java. BOLIVAR (14, p. 32) mentions it also from Sumatra, without exact locality.

Tauchira Buae BOLIVAR.

1898. *Tauchira Buae* BOLIVAR, Ann. Mus. Civ. Genova XXXIX. p. 92.

1918. *Bua Buae* BOLIVAR, Trab. Mus. Nac. Cienc. Natur. Ser. Zool. num. 34, p. 32.

General coloration olive green. Antennae blackish brown, paler apically. Head dark olive green, with blackish-brown lateral postocular fasciae; face in front, clypeus and mouth-parts with yellow spots or yellow bordered; with broad yellow lateral fasciae running from the base of antennae across the cheeks on to the lower part of the lateral lobes of pronotum. Vertex olive green with a narrow yellow stripe adjoining on each side the lateral postocular fasciae.

Pronotum olive green; upper half of the lateral lobes blackish-brown, bordered with yellow from above, the lower half of lateral lobes being yellow.

Elytra and wings abbreviated, reaching a little beyond the middle of hind femora. Elytra brown, area analis green with a yellow stripe along the anal vein; apex narrowly rounded.

Wings with bluish tinge, apex infumated. Episternum of meso- and metathorax yellow. Sternum and abdomen from beneath yellow with dark olive green bordered segments.

Anterior legs yellowish green or olive green.



FIG. 69

Tauchira Buae BOL.
♀. prosternal spine.

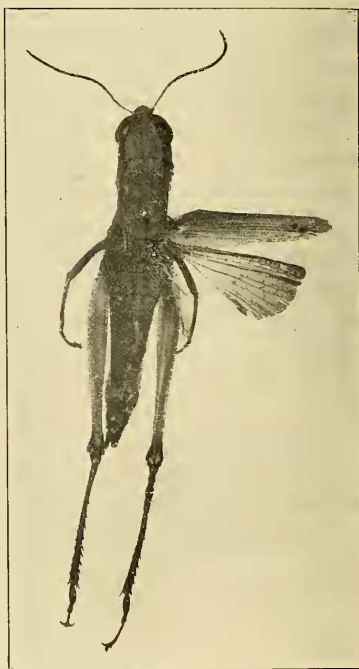


Fig. 70. *Tauchira Buae* BOL.
♀ cotype.

Hind femora yellow, inner and lower area red; outer

area with two oblique olive-green bands, knee black. Hind tibiae olive-green from above, reddish brown from beneath, with distinct yellow praegenicular ring, spines bluish-brown with dark tips. Hind tarsi bluish green. Fig. 69, 70.

	♂	♀
Length of body	21--24 mm.	26 mm.
„ „ pronotum	4.5--4.8 „	6.5 „
„ „ elytra	10--11 „	14 „
„ „ hind femora	12--13 „	15 „

This species was only known from the isle of Engano on the West-Coast of Sumatra.

Sumatra: Brastagi, Sibolangit (coll. MJÖBERG).

Oxyrrhepes.

1873. *Oxyrrhepes* STÅL. Oefv. Vet. Akad. Förh. XXX (4), pp. 40, 53.

Size medium or rather long, body slender, moderately or finely rugose. Antennae filiform, very slightly flattened, reaching as far as or beyond the hind margin of pronotum. Face strongly reclinate, frontal ridge not projecting between the antennae, margins gradually divergent towards the clypeus, obtuse; its surface punctured. Lateral facial keels straight or slightly curved.

Vertex broad, convex, with smooth sculpturation but without impressions, punctured anteriorly, forming a broad arc with the frontal ridge; margins of fastigium of vertex smooth, apex rounded. Occiput convex, with faintly indicated median keel. Pronotum somewhat constricted in the middle, median keel well developed, lateral keels indicated by a line of more rough sculpturation, anterior margin rounded, posterior margin rounded triangular. Sulci faintly indicated, third sulcus behind the middle. Lateral lobes of pronotum about as long as deep or longer, lower margin straight, anterior and posterior angle about 90°.

Prosternal spine compressed laterally, apex conical or truncate, straight or bent backwards. Mesosternal lobes about as long as broad, contiguous, metasternal lobes sub-contiguous. Elytra and wings developed, reaching far behind

the apex of hind femora; apex of elytra rounded or acute, wings hyalinous.

Hind femora long, slender, with the carinae smooth or subserrate. Hind tibiae nearly straight, not expanded apically, with 13 spines inwardly and 12 spines outwardly, with distinct outer apical spine. Hind tarsi short, not reaching beyond the middle of hind tibiae; first joint somewhat expanded; about as long as the two others together. Supra-analplate in the male long, oval, apex pointed with an oval impression on its surface.

Cerci long, slightly curved, slender, apex acute, or dilated apically and bidentate. Subgenitalplate long, pointed. Supra-analplate in the female triangular, apex obtuse, with an oval impression on its surface. Cerci short, straight, conical or more cylindrical, apex obtuse.

Valves of ovipositor short, margins smooth, apex strongly recurved and dentate. Subgenitalplate much longer than broad; posterior margin with a broad triangular projection in the middle and lateral incisions.

Genotype: *Acridium extensum* WALKER.

***Oxyrrhepes obtusa* DE HAAN.**

1842. *Acridium (Oxya) obtusum* DE HAAN. Verhandel. Overz. Bezit. Orth., p. 155, 156, no. 12.

1928. *Oxyrrhepes obtusum* WILLEMSE. Zoolog. meded. Mus. Nat. Hist. Leiden, Deel XI, p. 9, fig. 12.

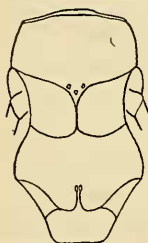


FIG. 71

Oxyrrhepes obtusa
DE HAAN ♀.
Meso- and
metasternum.

General coloration brown. Antennae brown, darker apically. Head yellowish-brown or brown with irregular darker dots on the cheeks, an indication of lateral postocular fasciae, vertex with a median and two lateral longitudinal darker lines or little spots.

Pronotum brown, with some dark round spots on the disc, dark lines along the keels and more or less on the lateral lobes, the lower margin of latter yellowish or with a yellowish stripe that in front is continuing on the lower margin of the cheeks.

Elytra and wings reaching far beyond the

apex of hind femora; elytra brownish, subhyalinous, with brownish veins, margined at intervals with blackish brown, especially in the apical half, area analis sometimes yellowish-brown. Anterior margin of elytra slightly rounded, nearly straight, near the apex rounded, apex acutely rounded, posterior margin subparallel. Wings hyalinous or slightly infumate.

Hind femora brown, with a row of brownish dots along the keels and on the outer area. Hind tibiae brown with black-tipped spines. Hind tarsi brown, on each joint from above a dark stripe. Fig. 71.

	♂	♀
Length of body	35 - 43 mm.	51 - 58 mm.
„ „ pronotum	6 - 7.5 „	9 - 10 „
„ „ elytra	33 - 36 „	46 - 50 „
„ „ femora	20 - 21 „	26 - 30 „

This species occurs on Java, Isl. of Sebesi and Sumatra.

Sumatra: Fort de Kock (coll. JACOBSON), Medan, Singalang (coll. Mjöberg), Surul (Sum. Exp. 1878, coll. Leiden).

Eritrichius.

1898. *Eritrichius* BOLIVAR. Ann. d. Mus. Civico d. Stor. Nat. d. Genova. Ser. 2, vol. XIX (XXXIX), p. 97.

Size medium, body robust, rugosely punctate. Antennae filiform, long, reaching far behind the posterior margin of the pronotum. Face almost perpendicular, frontal ridge projecting between the antennae, not sulcated; below the median ocel constricted and sulcated, gradually lowered and obliterated towards the clypeus.

Eyes strongly prominent sideways and upwards, narrowly separated on the vertex, interocular distance about half as broad as the frontal ridge. Fastigium of vertex subhorizontal, not separated from the frontal ridge by a transverse keel, but forming an obtusely rounded angle; anterior margin broadly rounded. Occiput convex, with median carinula.

Pronotum widened posteriorly, anterior margin rounded, truncate in the middle, posterior margin acutely angulate, hind angle less than 90° with the sides slightly undulating;

median keel slightly raised, broad and deeply interrupted by the three sulci, lateral keels absent; first transverse sulcus only indicated on the disc, second and third sulcus both on the disc and on the lobes, third sulcus a little before the middle of pronotum.

Lateral lobes about as deep as long, lower margin rounded, ascending in front from its middle and slightly ascending posteriorly, anterior angle rounded, posterior angle broadly rounded; behind the anterior margin a distinct submarginal sulcus. Prosternal spine short, conical, thick, apex obtuse. Mesosternal lobes about as long as broad, their interspace about as broad as long, metasternal lobes distinctly separated.

Elytra and wings developed; elytra with the veins straightly going to the apex, apex rounded, costal area partly membranaceous. Wings as long as elytra, subcycloid. Anterior legs relatively long and pilose. Hind femora incrassate, upper carina distinctly serrate. Hind tibiae slightly curved, not expanded, with 7 spines inwardly and 6 spines outwardly (without an apical spine). Hind tarsi long, reaching to the middle of hind tibia, third joint a little longer than the first.

Supra-analplate in the female triangular, apex rounded. Cerci as long as supra-analplate, nearly straight, conical, apex obtuse. Valves of ovipositor strongly recurved, obtuse.

Genotype: *Eritrichius Modiglianii* BOL.

***Eritrichius Modiglianii* BOL.**

1898. *Eritrichius Modiglianii* BOLIVAR. Ann. d. Mus. Civ. Stor. Nat. Genova. Ser. 2a, vol. XIX (XXXIX), p. 33.

I had the opportunity to study the type, being totally discolored by alcohol. General coloration brown, antennae blackish brown except the first joint. Palpi with the apex blackish brown. Prozona rugosely punctured, metazona with longitudinal, coarsely punctured rows, ♂ unknown. Fig. 72.

	♀
Length of body	31 mm.
„ „ antennae	18 „
„ „ pronotum	7 „
„ „ elytra	19 „
„ „ hind femora	17 „

This species is only known from Sumatra.

Sumatra: Pangherang-Pisang Oct. 1890—March 1891.



Fig. 72. *Eritrichius modigliani* BOL. ♀ Type.
Anterior margin of elytra is folded at the base and gives
not its real conformation.

Gonista.

1898. *Gonista* BOLIVAR. Ann. d. Mus. Civico d. Stor.
Nat. d. Genova Serie 2 vol. XIX (XXXIX) p. 92.

Size medium, body slender, finely rugose. Antennae
ensiform, flattened, apical joint pointed, reaching behind
the hind margin of pronotum, inserted about half the dis-
tance fastigium of vertex and the eyes.

Face strongly reclinate; frontal ridge prominent; projecting
between the antennae, percurrent towards the clypeus, sul-

cate throughout, below the median ocel widened, margins approximated at the fastigium, gradually divergent downwards. Lateral facial keels slightly curved. Eyes long-oval, slightly prominent sideways but not upwards; interocular distance as broad as the fastigium of vertex.

Fastigium of vertex horizontal, separated from and forming an angle with the frontal ridge; longer than broad, its margins subparallel, its surface impressed, with a median keel, anterior margin angulate, anterior angle slightly less than 90° . Occiput convex with a faint trace of a median carinula, being the continuation of the median keel of the fastigium of vertex. Pronotum compressed laterally, parallel-sided, median and lateral keels very distinct, the latter parallel, subparallel in the metazona. Anterior margin truncate or slightly rounded, posterior margin rounded.

First transverse sulcus only distinct on the lateral lobes, second transverse sulcus faintly indicated on the disc, not reaching the median keel, distinct on the lateral lobes, third transverse sulcus distinct both on the disc and on the upper part of the lateral lobes, distinctly behind the middle of pronotum. Lateral lobes vertical, much longer than high, with the lower margin slightly ascendant, anterior angle nearly straight, posterior angle near 90° , rounded; the lower margin straight with a slightly rounded incision near the posterior angle; posterior margin concave.

Prosternal tubercle short, obtusely conical. Mesosternal interspace very narrow or subcontiguous, mesosternal lobes longer than broad, their inner margins nearly straight; metasternal lobes subcontiguous, posterior margin of metasternum triangularly projected posteriorly, apex pointed. Elytra and wings long, reaching far behind the apex of hind femora. Elytra narrow, pointed. Wings a little shorter than elytra, anterior area at the apex pointed.

Hind femora long, slender, slightly compressed laterally, keels obtuse, kneelobes with a very small teeth of equal length on the outer and inner lobes. Hind tibiae straight, not expanded, with 14—17 spines inwardly and 12—15 spines outwardly, without external apical spine. Hind tarsi

short, not reaching the middle of hind tibia; first joint about as long as the two others together.

Supra-analplate of the female triangular, apex obtuse. Cerci short, cylindrical, apex obtuse. Valves of ovipositor obtuse, apex dentate. Subgenitalplate longer than broad, posterior margin straight, with a small triangular projection in the middle.

Genotype: *Gonista antennata* BOL.

***Gonista bicolor* DE HAAN.**

1842. *Acridium (Opsomala) bicolor* DE HAAN, Verhandel. Nat. Ges. Nederl. Overz. Bezitt. Bijdragen. p. 148.

1898. *Gonista antennata* BOLIVAR, Ann. Mus. Civico di Storia Natur. d. Genova. Ser. 2 vol. XIX (XXXIX) p. 93.

1899. *Gelastorrhinus gracilis* FRITZE, Revue Suisse d. Zoologie Tome 7, p. 338, Pl. 16, fig. 1, a, b, c.

1902. *Gelastorrhinus lucius* BURR, Trans. Ent. Soc. London. p. 181. n. 4, p. 182, n. 29.

1902. *Gelastorrhinus esox* BURR, Ibid. p. 181. n. 5, p. 183.

1924. *Gonista bicolor* HEBARD, Trans. Amer. Entom. Soc. L, p. 211.

1925. *Gelastorrhinus bicolor* EBNER, Treubia, vol. VI, p. 425.

1928. *Acridium (Opsomala) bicolor* WILLEMSE, Zoolog. Meded. Leiden. Deel XI, p. 2.

General coloration yellowish-brown, brown (greenish?). Antennae brown. Lateral postocular fasciae reddish. Elytra brownish, along the radial vein with a reddish stripe, posterior margin near the apex slightly infumate. Wings hyaline, along the radial veins and the posterior margin slightly infumate. Length and width of elytra and wings variable, as shown by EBNER (32 p. 426), but in my opinion of no specific value, perhaps as local variations, as is easy understood by its wide range.

Hind femora brown, with a reddish stripe on the outer area. Hind tibiae brown, spines brown, with black tips. Fig. 73.

	♂	♀
Length of body	25.5—30 mm.	38.5—43.5 mm.
„ „ pronotum	4.2—4.5 „	6.8—7.5 „
„ „ elytra	24.5—29.5 „	37—41 „
Width „ elytra	2—2.6 „	3.2—4.3 „
Length „ wings	20.5—24.5 „	30—33.5 „
„ „ hind femora	11.2—13 „	15.6—18.5 „



Fig 73. *Gonista bicolor* DE HAAN ♀.

This species is known from Japan, Java, Bali and Sumatra.
Sumatra : Deli (A. FRITZE), Medan, Sibolangit (Mjöberg).

Chondracris UVAR.

1923. *Chondracris* UVAROV, Ann. a. Magaz. of Nat. Hist.
Serie 9, vol XI. p 144.

1924. *Chondracris* UVAROV, Ibid. Serie 9, vol. XIV, p. 105.

Size large, body robust, coarsely punctured. Antennae filiform, reaching a little beyond the hind margin of pronotum. Face reclinate, frontal ridge in profile distinctly convex, forming a widely rounded angle with the fastigium, its margins parallel, from the median ocel to the clypeus slightly impressed. Eyes small, the height of an eye is less than the height of the subocular sulcus; distance between the eyes distinctly exceeding the horizontal diameter of an eye. Fastigium of vertex strongly sloping, not impressed.

Lateral facial carinae slightly curved. Pronotum distinctly compressed laterally, not constricted in the prozona, with the anterior margin distinctly angulate, the posterior margin angulately rounded with the hind angle acute or straight; the upper surface coarsely granulated throughout, including the median keel; median keel distinctly or strongly raised, tectiform, lateral keels absent; median keel cut by the three sulci, first transverse sulcus only indicated on the disc, second and third both on the disc and on the lobes, third sulcus a little behind the middle of pronotum. Lateral lobes about as long as deep, lower margin subhorizontal, anterior and posterior angle rounded; its surface granulated, less in the middle.

Prosternal spine strongly inclined and angulately bent towards the mesosternum, touching the latter or nearly so, its preapical part more or less incrassate, apex obtuse. Mesosternal lobes longer than broad, inner margins rectangular, inner angles nearly straight. Metasternal lobes separated by a small interspace or contiguous. Elytra and wings well developed, reaching beyond the apex of hind femora; elytra transparent throughout or subcoriaceous at the base; wings with the base rose.

Hind femora narrow, with the upper outer keel straight; all keels serrate and granulate. Hind tibiae strong, with 10—11 inner spines and 8—9 outer spines, without outer apical spine. Hind tarsi short, not reaching the middle of hind tibia. Supra-analplate of male triangular, apex pointed. Cerci short, conical, apex pointed. Subgenital plate conical, apex pointed and slightly recurved.

Supra-analplate of female long, triangular, apex rounded.

Cerci short, conical, apex acute. Valves of ovipositor with the margins smooth, apex curved and pointed.

Subgenitalplate longer than broad, posterior margin with a median triangular projection.

Genotype: *Acrydium roseum* DE GEER.

Chondracris rosea DE GEER.

1773. *Acrydium roseum* DE GEER, Mém. Ins. III. p. 488, no. 3, pl. 41, fig. 1.

1787. *Gryllus flavicornis* FABRICIUS, Mant. Ins. I. p. 237, no. 19.

1870. *Cyrtacanthacris lutescens* WALKER, Cat. Derm. Salt. B. M. III, p. 566, no. 33, (bleached).

1924. *Chondracris rosea* UVAROV, Ann. a. Mag. Nat. Hist. Ser. 9, vol. XIV, p. 107.

There are two subspecies that may be separated in the following key.

1. Median keel of the pronotum moderately raised in prozona, and low, straight in profile in metazona; the latter only feebly tectiform, its disc forming distinct angles with the lateral lobes. Elytra exceeding the hind knees by one-fourth of their total length.

Subsp. *rosea* DE GEER.¹⁾

1.1. Median keel of the pronotum strongly raised and arched throughout; metazona tectiform, its disc sloping into



FIG. 74

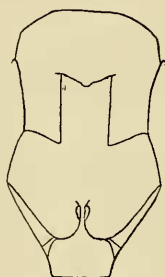


FIG. 75

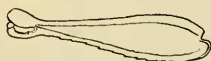


FIG. 76



FIG. 77

Fig. 74. *Chondracris rosea* DE GEER ♀. Prosternal tubercle p.t. -- Fig. 75. *Chondracris rosea* DE GEER ♂. Meso- and metasternum. — Fig. 76. *Valanga nigricornis* BURM. Hind femora. After UVAROV. — Fig. 77. *Patanga succincta* L. Hind femora. After UVAROV.

¹⁾ This subspecies is only known from China and Formosa.

the lateral lobes. Elytra longer, exceeding the hind knees by about one-third of their total length. Fig. 74-77.

Subsp. *brunneri* UVAR.

Subsp. brunneri UVAR.

1924. UVAROV. Ann. a. Mag. Nat. Hist. Ser. 9, vol. XIV, p. 108.

General coloration green or brownish-green. Antennae yellowish-brown, darker apically. Head and pronotum green. Vertex with a yellow median stripe, continuing on the pronotum. Cheeks with some yellowish stripes.

Pronotum with a yellow band along the median keel; lateral lobes with some irregular oblique yellow stripes and dark round spots. Elytra uniformly green. Wings hyalinous, with the base rose. Hind femora green. Hind tibiae red, spines yellow with black tips. Hind tarsi red.

	♂	♀
Length of body	50-60 mm.	65-85 mm.
„ „ pronotum	14-15 „	19-23 „
„ „ elytra	48-52 „	63-74 „
„ „ hind femora	29-30 „	37-43 „

This species is ranging from India, Assam to Java.

Sumatra: 1 ♀ Sumatra Expedition 1877-78.

Valanga.

1923. *Valanga* UVAROV. Ann. a. Magaz. Nat. Hist. Serie 9, vol. XI, p. 143.

Size large, body robust, coarsely punctured. Antennae filiform, reaching a little beyond the hind margin of pronotum. Face slightly reclinate, frontal ridge in profile straight; seen from the front it is parallel-sided, or practically so, indistinctly narrowed at the fastigium; its surface finely punctured, impressed below the ocellum; margins smooth, reaching the clypeus. Eyes strongly prominent, oval, less than twice as high as long; subocular distance exceeds somewhat their length; distance between the eyes half as broad as an eye is long and subequal to the width of frontal ridge.

Fastigium of vertex distinctly sloping, feebly impressed; margins scarcely raised, punctured. Lateral facial carinae slightly curved. Pronotum more or less tectiforme, compressed laterally and more or less constricted in the metazona; median keel thick; surface very coarsely punctured in prozona and more thinly, but densely, in metazona; lateral keels absent, median keel cut by three sulci; first transverse sulcus only indicated on the disc, second and third both on the disc and on the lobes, third sulcus only a little behind the middle of pronotum; anterior margin truncate-sinuate, posterior margin rounded.

Lateral lobes not much deeper than long, about as long as deep, lower margin ascendant from its middle to the anterior margin, anterior angle obtuse, posterior angle rounded. Prosternal spine laterally compressed, slightly inclined and bent backwards, but widely separated from the mesosternum. Mesosternal lobes longer than broad, inner margins rectangular or concave, inner angles straight or acute. Metasternal lobes contiguous (♂) or slightly separated (♀). Elytra and wings well developed, reaching beyond the apex of hind femora; elytra fairly broad, transparent almost throughout; apex rounded, veinlets in the apical part more or less perpendicular to the veins. Wings slightly or moderately infumate, with the base mostly coloured.

Hind femora short and broad, with the apical part hardly attenuate. Hind tibiae strong, slightly curved with 11 spines inwardly and 9 spines outwardly, without outer apical spine. Hind tarsi short, not reaching the middle of hind tibia, third joint a little shorter than the two others together, arolium large.

Supra-analplate in the male triangular, with the margins rounded, apex obtuse; in the basal half with a narrow median sulcus. Cerci strongly laterally compressed, with the apex attenuate and more or less decurved and incurved. Subgenitalplate long conical, pointed. Supra-analplate in the female triangular, with the apex broadly rounded, and a narrow median sulcus or impression basally. Valves of ovipositor with the margins smooth, apex curved. Subgenitalplate longer than broad, posterior margin straight or slightly convex.

Genotype: *Acridium nigricorne* BURM.

Valanga nigricornis BURMEISTER.

Subsp. Sumatrensis UVAROV.

1923. *Valanga nigricornis-sumatrensis* subsp. n. UVAROV.
Ann. a. Mag. of Natur. History, Serie 9, Vol. XII, p. 348, 354.

General coloration almost uniformly green. Antennae blackish-brown. Head yellowish or brownish green, with irregular dark spots on the cheeks, and behind the eyes. Pronotum green, without or with blackish lateral fasciae on its disc or blackish spots on the lateral lobes. Elytra yellowish green or brownish green without or only with few and obsolete spots.

Wings uniformly infumate, with the base rose.

Hind femora green with yellow stripes or brownish green, without dark fasciae. Hind tibiae from above fleshred or pale red, from below greenish or yellowish, spines yellow with black tips. Sternum and abdomen greenish or brown.

	♂		♀
Length of body	45—49	m.m.	57—62 mm.
„ „ pronotum	10—10.5	„	12—13 „
„ „ elytra	40—44	„	55—56 „
„ „ hind femora	25—26	„	31—33 „

This subspecies is only known from Sumatra. UVAROV described this subspecies from only two specimens from Padang Pandjang (West-Sumatra).¹⁾

Sumatra: Padang, Lubuksikaping, Fort de Kock (E. Jacobson), Solok, Lubu, Bangku, Tandjong Morawa Serdang, Kepahiang, Indrapora, Surui, Singkep, Kutur, Deli, Medan.

¹⁾ In the collection of Mr. E. JACOBSON were many specimens that in their colour did not agree with the typical *sumatrensis*. They varied from brown or yellowish-brown with green stripes and markings to almost uniformly green.

I do not think that the green coloration in its self is of subspecific value, the more so as these specimens were found on the same spot together.

Patanga.

1923. *Patanga* UVAROV. Ann. a. Mag. Nat. Hist., Ser. 9, Vol. XI, p. 143, Vol. XII, p. 362.

Size large, body robust, coarsely punctured. Antennae filiform, reaching a little beyond the hind margin of pronotum. Face vertical or slightly reclinate. Frontal ridge more or less parallel-sided, sometimes slightly constricted at the fastigium, somewhat impressed below the ocellum; its margins reaching the clypeus. Eyes not twice as high as long; subocular distance exceeds their length, but is shorter than their height; the distance between the eyes is broader than the frontal ridge, but distinctly narrower than the subocular distance.

Fastigium of vertex distinctly sloping, feebly impressed; margins scarcely raised. Lateral facial carinae curved or angulately bent.

Pronotum distinctly compressed laterally and constricted in the prozona, rounded with the median keel very low and almost subobliterate owing to the coarse honeycombed sculpturation. Anterior margin rounded, posterior margin rounded. Sulci sometimes scarcely perceptible because of the coarse sculpturation; first sulcus only indicated on the disc, second and third both on the disc and the lobes; third sulcus about in the middle of pronotum. Lateral lobes deeper than long, lower margin slightly ascendant from its middle to the anterior margin; anterior angle obtuse, posterior angle near 90° , rounded.

Prosternal spine more or less compressed laterally, inclined, but not bent towards the mesosternum, not reaching the latter.

Mesosternal lobes longer than broad, inner margins more or less concave, so that their interspace is somewhat cordiform. Metasternal lobes contiguous (σ^7) or separated (φ).

Elytra extending well beyond the hind knees, scarcely narrowed towards the apex, which is obliquely rotundotruncate; reticulation of the discoidal field in its basal part and all along the middle incrassate and confluent, so that those parts appear hardly transparent, while the rest of the field is remotely reticulate and transparent.

Wings tinged with rose or hyaline. Hind femora long, slender, with the apical part attenuate. Hind tibiae strong, slightly curved with 11 spines inwardly and 9 spines outwardly, without outer apical spine. Hind tarsi short, not reaching the middle of hind tibia, third joint a little shorter than the two others together, arolium large.

Supra-analplate in the male triangular, with the margins undulate, apex rounded and a median narrow impression basally. Cerci laterally compressed, long, with the apex attenuate, decurved and incurved. Subgenital plate long, conical, pointed. Supra-analplate in the female triangular, apex rounded, with a shallow median sulcus in the basal half. Cerci short, conical, apex obtuse. Valves of ovipositor with the margins smooth, apex curved and pointed. Subgenital plate longer than broad, posterior margin truncate or convex.

Genotype: *Gryllus Locusta Succinctus* L.

Key to the species.

1. General coloration almost uniformly green. Face very coarsely sculptured; frontal ridge at the fastigium constricted. Hind tibiae red. Male cerci not strongly compressed, much longer than the supra-anal plate, S-shaped, gradually narrowed apically. **luteicornis** SERV.

1.1. General coloration pale with grey, brown, or black pattern, or more or less uniformly greyish or brownish, but never green or even greenish. Prosternal tubercle scarcely or not at all compressed laterally. Male cerci strongly compressed laterally. Face sparsely and finely punctured.

. . . . **succincta** L.

Patanga luteicornis SERV.

1839. *Acridium luteicorne* SERV. Ins. Orth., p. 658, no. 17.

General coloration almost uniformly green. Antennae brown. Face green, with a bright yellowish red oblique stripe along the lateral facial carinae. Cheeks with a green oblique band, posteriorly bordered by a yellowish stripe, running from the lower margin of the eye to the posterior angle of

the cheeks. Vertex green with a broad yellow median stripe, running from the anterior margin of fastigium on to the pronotum, continuing as a broad yellow stripe along the median keel of pronotum. Pronotum green. Elytra green or brownish green, with a bright stripe along the mediastinal area; anal area yellowish green. Wings slightly infumated, rose basally.

Hind femora greenish, inner and lower area yellowish red. Hind tibiae red, spines yellow with black tips

	♂	♀
Length of body	50 mm.	57—68 mm.
" " pronotum	9 "	13—15 "
" " elytra	49 "	67—74 "
" " hind femora	27 "	36—41 "

This species is known from Malacca, Sumatra and Borneo.

Sumatra: Padang (E. Jacobson), Mount Singalang, Pailan, Pladju.

***Patanga succincta* L**

1763. *Gryllus Locusta succinctus* LINNAEUS, Amoen. Acad. VI, p. 398, no. 36.

1846. *Acridium assectator* FISCHER WALDHEIM, Entom. Imp. Ross. IV; Orth. Imp. Ross., p. 235, no. 2, pl. XII, fig. 2.

1870. *Cyrtacanthacris fusilinea*, WALKER. Cat. III, p. 564, no. 30.

1870. *Cyrtacanthacris inficita* WALKER. Ibid p. 565, no. 32.

1870. *Acridium rubescens* WALKER. Ibid p. 588, no. 39.

1870. *Acridium elongatum* WALKER. Ibid IV, p. 636.

General coloration pale with grey, brown, or black pattern, or more or less uniformly greyish or brownish, but never green or even greenish. Antennae yellowish brown. Face brown or yellowish, carinae with brown stripes. Cheeks yellowish brown with two brown stripes or an irregular brown pattern. Lateral postocular fasciae reddish brown. Vertex with a broad median yellow or reddish band, continuing on the disc of pronotum.

Pronotum brown or yellowish, lateral lobes in the anterior part of the upper part with a dark brown stripe along the

lateral postocular fascia. Below this dark stripe with a yellow one and some yellowish dots. Lower margin bordered with yellow. Elytra yellowish, basal half brownish, apical half with brown irregular dots, discoidal area often with bright yellow spots along the radial vein, anal area yellowish-brown without spots.

Wings rose basally (not always) and hyaline with dark veins in the rest. Hind femora yellowish brown, with a blackish stripe along the upper keel on the outer area. Hind tibia yellowish brown, spines pale yellow with dark tips.

	♂	♀
Length of body	43—48 mm.	56—61 mm.
„ „ pronotum	9—10 „	12—14 „
„ „ elytra	48—52 „	65—70 „
„ „ hind femora	27—28 „	35—38 „

This species is ranging from S. Asia, Malaya into Oceania.

Sumatra: Fort de Kock 1 ♀ (E. Jacobson), Solok, Silago, Pladju. Indragiri, Siantar Bangun, Medan.

Tuberofera nov. gen.

Size medium, body slender, rugosely punctured. Antennae filiform, in the male reaching to the middle of hind femora, in the female a little shorter. Face reclinate, frontal ridge not or only slightly projecting between the antennae, and there smooth or with a row of points, margins parallel, somewhat irregular below the ocellum, and coarsely punctured. Eyes prominent sideways, interocular distance about as broad as the frontal ridge.

Fastigium of vertex strongly sloping, not separated from the frontal ridge by a transverse keel, forming an acutely rounded angle with it; its general form triangular, with the anterior margin truncate, lateral margins obtuse, with an indication of temporal foveolae; its surface slightly impressed or with an indication of a median sulcus. Occiput convex, with a low, indistinct median carinula. Lateral facial carinae slightly curved, indistinctly indicated.

Pronotum cylindrical, slightly widened posteriorly, lateral keels absent, median keel indicated by a coarsely punctured

keel, anterior margin rounded, posterior margin rectangular, first transverse sulcus only indicated on the disc, second and third both on the disc and on the lobes, third sulcus about in the middle or a little behind it; surface of the pronotum coarsely punctured, disc with round, distinct tubercles, some along the median keel in the prozona or on the prozona, the others behind the first sulcus with two tubercles, regularly deposited, on each side, and one on the metazona, on each side. Lateral lobes of pronotum higher than long, lower margin subhorizontal, ascendant from its middle to the anterior margin, anterior angle obtusely rounded, posterior angle rounded.

Prosternal tubercle straight, conical, subacutely pointed. Mesosternal lobes broader than long, their inner margin rounded, their interspace slightly smaller than the lobes, widened posteriorly, metasternal lobes subcontiguous in the male, separated in the female.

Elytra and wings well developed, reaching far behind the apex of hind femora. Elytra with the anterior margin slightly rounded, apex rounded truncate. Hind femora with the keels subserrate, arc. genic. ext. and int. obtuse.

Hind tibiae slightly curved, not expanded apically, with 11 inner and 9 outer spines, without outer apical spine. Hind tarsi short, reaching the middle of hind tibia, third joint somewhat longer than the two others together.

Supra-analplate of male long, triangular, apex obtusely rounded, with a median oval impression at the base. Cerci about as long as the supra-analplate, straight, conical, apex pointed.

Subgenitalplate short, conical, apex obtuse. Supra-analplate of female triangular, with an oval impression basally. Cerci straight, conical, apex obtuse. Valves of ovipositor with the margins smooth, apex slightly curved. Subgenitalplate longer than broad, posterior margin rounded.¹⁾

Genotype: *Tuberofera cyanoptera* nov. sp.

***Tuberofera cyanoptera* nov. sp.**

General coloration brown or brown olive. Antennae

¹⁾ The description of the female is taken from a specimen from Perak belonging to a new species.

blackish brown, basal joints bright red, apical joints yellowish. Head yellowish brown, face with an oval blackish figure, the base of the figure reaching the clypeus, the top of it lying between the antennae. A small black stripe is running from this top, between the antennae, on to the fastigium of vertex, across the occiput, on to the median keel of pronotum, along this keel to the posterior margin of pronotum. Lateral postocular fasciae small, black. Cheeks brown or with a faint brownish dot



Fig. 78. *Tuberofera cyauoptera* nov.
gen. e. spec. ♂ type.

below the eye. Pronotum brown or yellowish brown, median keel and tubercles black; lateral lobes brown olive, upper part with a longitudinal black stripe (lateral postocular fascia).

Elytra olive-brown in the basal, more reddish brown in the apical half.

Wings bluish, infumated in front and apically. Sternum and abdomen yellowish or brown, with irregular greenish dots. Hind femora with the outer and upper area yellowish, lower and inner area bright red; outer and upper area with three oblique black bands, the outer lower keel black, outer upper keel with black spots, kneelobes brownish-olive.

Hind tibiae olive, spines with black tips. Hind tarsi brownish-olive. (Fig. 78).

	♂	
Length of body	16.5 mm.	
„ „ pronotum	4	„
„ „ elytra	17	„
„ „ hind femora	11	„

This species is only known from Sumatra.

Sumatra: Lubuksikaping 450 M. 1 ♂ (E. JACOBSON).

Althaemenes.

1878. *Althaemenes* STÅL. Bihang Svensk. Akad. Handl. V (4), p. 27.

Size medium, body robust, rugosely punctured with numerous granules and tubercles. Antennae filiform, not extending beyond the hind margin of pronotum. Face almost vertical or slightly reclinate; frontal ridge slightly projecting between the antennae, broad, with the margins raised and convergent towards the median ocel, its surface punctured, without carina separating fastigium from the frontal ridge, below the median ocel subobliterate and indicated by an irregular row of tubercles.

Eyes strongly prominent sideways, oval, interocular distance broad, about twice as broad as the frontal ridge. Fastigium of vertex strongly sloping, not separated from the frontal ridge by any keel, punctured; vertex convex with a pair of round tubercles, on each side. Lateral facial carinae slightly convex, bearing some round tubercles. Cheeks with some tubercles.

Pronotum slightly constricted in the metazona, strongly tectiform, median keel strongly raised, crest-like, in the prozona with irregular incisions, viewed in profile with irregular teeth, in the metazona with a row of small sharp teeth. Disc and lateral lobes rugosely punctured with 3—4 transverse rows of round tubercles in the prozona. Lateral keels absent. Metazona with a deep impression on each side, behind the principal sulcus. Principal sulcus far behind the middle of pronotum, first and second sulcus distinct (♂) or subobliterate (♀).

Anterior margin angulate or truncate angulate in the middle, posterior margin broadly rounded. Lateral lobes deeper than long, lower margin straight, slightly ascendant from its middle to the anterior margin; anterior and posterior angle broadly rounded.

Prosternal tubercle straight, conical, apex obtuse or more acute, but not pointed.

Mesosternal lobes about as broad as long, their inner margin rounded, their interspace broader than long, widened

posteriorly. Metasternal lobes separated by a small interspace. Elytra and wings short, not extending beyond the apex of abdomen. Elytra with a very dense reticulation, broad, apex broadly rounded, with the principal veins extending towards the apex. Wings broad, cycloid, strongly infumated, except their base.

Hind femora strong and incrassate, more or less triangular in section, all carinae acutely serrate, internal face flat, upper outer area very broad, about twice or thrice as broad as the inner one, gradually narrowing towards the apex; inner lower area about as broad as the outer one. Hind tibiae strong, incurved apically, armed with 9 inner and 8 outer spines, without outer apical spine. Hind tarsi reaching to the middle of hind tibia, third joint longer than the two other together.

Supra-analplate of male triangular, the very apex with a median teeth and a slight incision on each side; sulcate basally. Cercus broad, longer than supra-analplate, cylindrical, apex incurved and somewhat dilated, obliquely truncate or more rounded truncate. Subgenital plate short, obtuse.

Supra-analplate of female triangular, apex obtuse, with a median impression basally. Cercus short, conical, apex acute.

Valves of ovipositor short, straight, margins smooth, apex not curved but straight and pointed; upper valves somewhat longer than the lower ones. Subgenital plate longer than broad, posterior margin rotundate truncate.

Genotype: *Acridium macula-lutea* DE HAAN.

***Althaemenes macula-lutea* DE HAAN.**

1842. *Acridium macula-lutea* DE HAAN. Verhandel. Nat. Gesch. Nederl. Overz. Bezitt., p. 159, pl. 21, fig. 3.

General coloration reddish brown, all tubercles black.

Antennae blackish-brown, darker apically. Head reddish brown, tubercles black, vertex on each side with a black spot, behind each eye a black band also. Pronotum reddish brown, tubercles black, metazona, posterior part and lower part of lateral lobes more blackish brown. Crest of pronotum

variegated with black. Elytra dark olive green, with a broad yellow transverse band in the basal half, extending from



Fig. 79. *Althaemenes macula-lutea*. Fig. 80. *Althaemenes macula-lutea* DE HAAN.
DE HAAN ♂. ♀ type.

the posterior margin to nearly the anterior one, being the anterior margin itself olive-green or brownish and with the exception of a dark olive green spot in the very base of the anal area.

Wings infumated, except the basal half that is hyalinous with a rosy tinge. Hind femora reddish brown or dark brown, inner area at the base bluish, upper areae in the basal half with a great pale yellow spot, upper and lower carinae in their apical third with a small yellowish dot; teeth of the keels black.

Hind tibiae blackish brown, spines black. There is a remarkable difference between the length of the male and female. (Fig. 79, 80).

	♂	♀
Length of body	17 mm.	28 mm.
„ „ pronotum	5 „	10 „
„ „ elytra	10 „	19 „
„ „ hind femora	11 „	17 „

This species is only known from Sumatra.¹⁾

Sumatra: 1 ♀ Padang (type de Haan) 1 ♂ between Serdang and Lake Toba (N. E. Sumatra) leg. Dr. B. Hagen. It seems to be a rare species, the above mentioned specimens being the only ones I ever saw.

Teratodes.

1835. *Teratodes* BRULLÉ. Hist. Ins. IX, p. 222.

Size medium, body very stout, rugosely punctured and granulated. Antennae filiform, short, rather thick, widely separated at the base, with indistinct joints. Head broad, rounded above, face vertical, frontal ridge not projecting between the antennae, very shallow, parallel-sided from the clypeus to the median ocel, from there suddenly dilated towards the insertion of antennae. Vertex rounded, fastigium of vertex forming with the frontal ridge a broadly rounded arch. Eyes prominent sideways. Lateral facial carinae straight and distinct.

Pronotum strongly raised, large, sublaminately compressed, in front arched above the head in the middle of the anterior margin; the middle forming a high crest, denticulated, especially in the posterior part and covering half the length of the abdomen; the sides granulated, the extreme tip of the crest pointed and slightly curved upwards; lateral keels absent. Prosternal tubercle small, straight, pointed, situated near the anterior margin of the prosternum. Mesosternal lobes somewhat longer than broad, inner margins convex, their interspace smaller than one of the lobes. Metasternal lobes separated by a relatively large interspace.

Elytra and wings developed, reaching the apex of abdomen or shorter. Elytra broad, coriaceous, principal veins distinct, apex broadly rounded. Wings somewhat shorter than elytra, apex broadly rounded; hyaline. Anterior legs rather short. Hind femora short, stout, more or less triangular in section, keels strongly dentate, alternatively with

¹⁾ BRUNNER VON WATTENWYL (18, p. 196) enumerates this species from Borneo. It is not impossible that it is not the same species.

smaller and larger spines; outer area pennate with a pseudo-keel in the lower part. Hind tibiae slightly curved, with strong spines, the inner ones longer than the outer ones; with 10 inner spines and 9 outer spines, without outer apical spine. Hind tarsi short, third joint a little shorter than the two others together. Supra-analplate of female trapezoidal, apex obtuse. Cerci short, straight. Valves of ovipositor with the margins smooth, apex curved.

Genotype: *Gryllus monticollis* GRAY.

***Teratodes monticollis* GRAY.**

1832. *Gryllus monticollis* GRAY. Griffith's Anim. Kingd. XV, 1832, p. 215, pl. 64.

General coloration almost uniform green; the following portions are generally yellow, or occasionally reddish; the

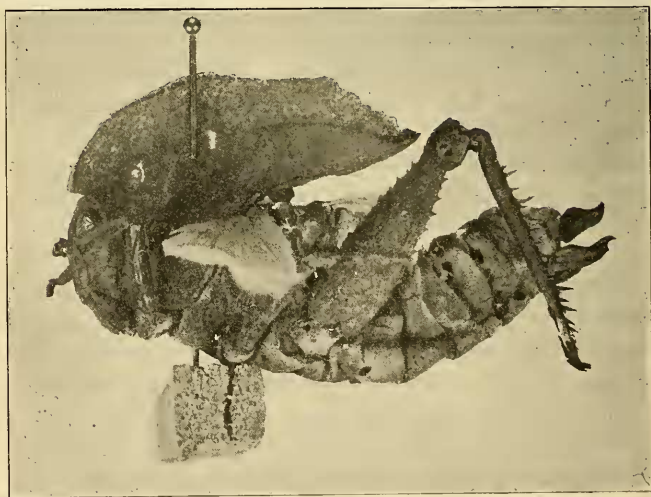


Fig. 81. *Teratodes monticollis* GRAY ♀.

antennae, a line on the whole crest of the pronotum, the upper carinae of the hind femora, an arch on the knees, the lower carinae and spines of the hind tibiae. Within

the outer upper carina of the femora is sometimes a row of pale spots. Tegmina opaque, uniform green, very thickly reticulated; wings pale greenish hyaline.

I saw a defect, in alcohol preserved and afterwards dried specimen from the Baseler Museum, that I figured (fig. 82), with the following dimensions:

	♀	
Length of body	50	mm.
„ „ pronotum	34.5	„
Height „ pronotum	22	„
Length „ elytra	35	„
„ „ hind femora	25.5	„
„ „ hind tibia	25	„

This species is only known from India and Ceylon.

Sumatra: 1 ♀ Sumatra? (coll. Baseler Museum).

Pseudocoptacra nov. gen.

Size medium, body slender, moderately rugose. Antennae filiform, reaching beyond the hind margin of the pronotum. Face slightly reclinate; frontal ridge projecting a little between the antennae with two rows of fine points; below the median ocel sulcated and slightly dilated towards the clypeus; margins straight, in the male near the median ocel somewhat constricted. Eyes strongly prominent sideways and upwards, narrowly separated on the vertex.

Interocular distance about as broad as the frontal ridge or somewhat smaller. Fastigium of vertex subhorizontal, not separated from the frontal ridge by a transverse keel, forming with the frontal ridge a more or less rectangular angle; its general form is hexagonal, about as long as broad, its surface slightly impressed, lateral margins obtuse.

Occiput convex, without median carinula. Lateral facial carinae straight or slightly convex, cheeks with some rugosities. Pronotum slightly constricted in the prozona, lateral keels absent, median keel obsolete, only slightly indicated in the metazona. Anterior margin rounded with a little rounded incision in the middle, posterior margin obtuse angulate.

First transverse sulcus faintly indicated only on the disc,

second and third sulcus more distinct, though fine, both on the disc and on the lobes; third sulcus a little behind the middle of pronotum. Lateral lobes a little deeper than long, lower margin ascendant from its middle to the anterior margin, anterior angle rounded, posterior angle broadly rounded. Prosternal tubercle straight, sharply pointed.

Mesosternal lobes with their inner margin rounded, their interspace broader than long; metasternal lobes separated by a small interspace or subcontiguous. Elytra and wings developed, reaching beyond the apex of hind femora; wings hyalinous.

Hind femora with the keels smooth, not serrulate or denticulate. Hind tibiae slightly curved, not expanded apically, with 10—11 inner spines and 9—10 outer spines, without outer apical spine. Hind tarsi short, not reaching beyond the middle of hind tibia; second joint short.

Supra-analplate of male triangular, apex rounded, with an oval impression in the basal half. Cerci straight, pointed, reaching a little beyond the supra-analplate. Subgenitalplate short, narrow, apex obtuse. Supra-analplate of female triangular, apex rounded. Cerci short, straight. Valves of ovipositor short, margins smooth, apex obtuse. Subgenitalplate longer than broad, posterior margin acutangulate.

Genotype: *Pseudocoptacra mjobergi* nov. sp.

***Pseudocoptacra mjobergi* nov. sp.**

General coloration brown (bleached by spirit). Antennae

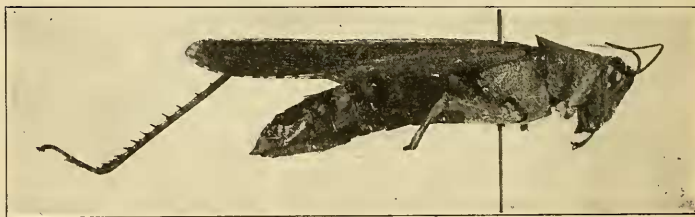


Fig. 82. *Pseudocoptacra mjobergi* nov. sp. ♀ type, profile.

brown, darker apically, the extreme tip in the male yellowish-brown. Head brown, in the female with some dark spots

on the frontal ridge and lateral facial carinae. Pronotum brown with a black stripe in the third sulcus on the disc, on each side.

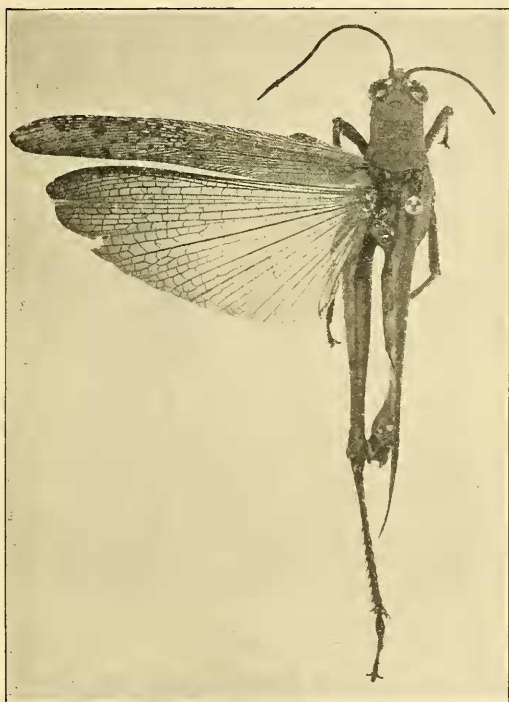


Fig. 83. *Pseudocoptacra mjobergi* nov. sp. ♀ type.

Elytra brown with irregular dark spots in the apical half. Wings hyaline, in the female bluish (male discoloured), apex infumated.

Hind femora brown, in the female with bluish spots along the keels and on the outer area with an indication of a bluish band in the apical half (male discoloured). Hind tibiae bluish brown or brown, spines blacktipped. Hind tarsi brown. Fig. 82—84.

	♂	♀
Length of body	21 mm.	35 mm.
„ „ pronotum	4 „	6.5 „
„ „ elytra	21 „	30 „
„ „ hind femora	14 „	19 „

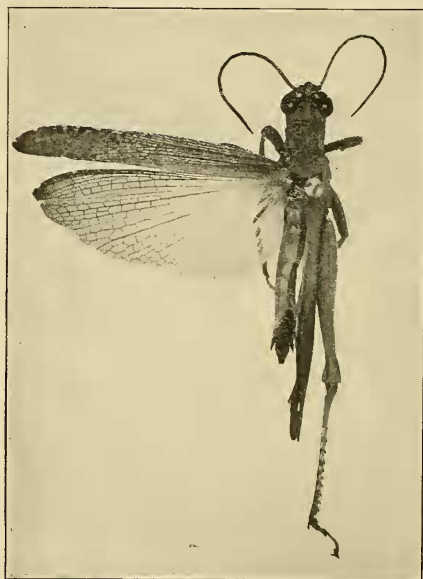


Fig. 84. *Pseudocoptacra mjöbergi* nov. sp. ♂ type.

This species is known from Sumatra and Java.

Sumatra: Medan, Bandar Baru (coll. Stockholm). Type in Museum Stockholm, Deli (coll. Mus, Berlin).

Traulidea nov. gen.

Size small or medium, body slender, rugose, hirsute. Antennae filiform, reaching beyond the hind margin of pronotum. Face reclinate, frontal ridge slightly projecting between the antennae and finely punctured, below the median ocel narrowed and from there obliterated.

Eyes strongly prominent sideways, almost hemispherical, narrowly separated on the vertex, interocular distance as

broad as the frontal ridge. Fastigium of vertex strongly sloping, not separated from the frontal ridge by a distinct keel; near the anterior margin with an oval punctate impression, forming with the frontal ridge a rounded angle. Occiput convex. Lateral facial carinae nearly straight, very fine. Pronotum cylindrical, metazona slightly widened posteriorly, anterior and posterior margin rounded, median keel subobsolete, lateral keels absent; transverse sulci difficult to recognize between the rugosely punctured sculpturation, third sulcus far behind the middle; lateral lobes longer than high, lower margin ascendant from its middle to the anterior and posterior margin, anterior and posterior angle obtusely rounded.

Prosternal tubercle small, conical, apex pointed. Mesosternal lobes broader than long, their inner margin rounded, their interspace broad and widened posteriorly, about as broad as the lobe. Metasternal lobes subcontiguous.

Elytra and wings short, extending a little beyond the middle of abdomen. Elytra with the anterior and posterior margin subparallel, apex broadly rounded. Wing rudimentar. Hind femora rather thick, upper keel serrate. Hind tibiae slightly curved, not expanded apically, with 8 inner spines and 8 outer spines, without outer apical spine. Hind tarsi long, reaching behind the middle of hind tibia, third joint somewhat longer than the two others together.

Supra-analplate of male triangular, apex obtuse, with a median sulcus basally. Cerci slightly curved, reaching a little beyond the supra-analplate, apex obtuse. Subgenital-plate conical, apex more or less pointed. ♀ unknown.

Genotype: *Traulidea gracilis* nov. sp.

***Traulidea gracilis* nov. sp.**

General coloration black with yellow bands. Antennae reddish-brown, darker apically. Head black with a yellow stripe running from the base of antennae, along the lower margin of the eye, across the cheeks and across the upper half of the lateral lobes of pronotum and the sides of meso- and metanotum. Above the clypeus a quadrate yellow spot. Clypeus and mouthparts with yellow spots.

Fastigium of vertex yellow, bordered with black. This yellow stain is posteriorly split up into two small yellow stripes, beginning between the eyes, running across the vertex and continuing on the disc of the pronotum on each side, finishing on the elytra. Pronotum black with two longitudinal yellow stripes on each side.



Fig. 85. *Traulidea gracilis*
nov. gen. e. spec. type.

Elytra black or reddish brown with a yellow stripe in the middle, from the base to the apex. Wing blackish with a yellow stripe near the anterior margin. Abdomen and sternum black. Sternum with yellow spots. Sides of abdomen more or less yellow or greenish yellow; from above with a median small yellow stripe. Top of subgenital plate greenish yellow. Anterior legs brownish or olive green. Hind femora reddish brown, with a small blackish and broad yellow praegenicular ring, knee bluish black.

Hind tibiae olive green, with a yellow ring basally; spines blackish. Hind tarsi reddish brown. Fig. 85.

	♂
Length of body	14 mm.
» » pronotum	4 »
» » elytra	6 »
» » hind femora	10 »

Only known from Sumatra.

Sumatra: 1 ♂ Siolak Daras, Korinchi Valley, 3,100 ft, Mrch. 1914. type. Type Museum London.

Bibracte.

1878. STÅL, Bihang Svensk. Akad. Handl. V (4) pp. 27, 71.

Size medium, body robust, rugosely punctured. Antennae filiform, reaching beyond the posterior margin of pronotum. Face reclinate; frontal ridge not projecting between the antennae, margins between the antennae subparallel, or

slightly convex, narrowing towards the median ocel, below the median ocel to the clypeus subparallel, often subobliterate, its surface like the whole head rugosely punctured. Eyes strongly prominent sideways and upwards, oval, interocular distance about as broad as the maximum width of the frontal ridge.

Fastigium of vertex sloping, hexagonal, margins practically obliterated, forming with the frontal ridge a rounded angle. Occiput with a median carinula, sometimes with a small keel along the upper margin of the eye on each side. Lateral facial carinae straight, subobliterate.

Pronotum cylindrical, metazona slightly widened posteriorly; anterior margin convex, with a small incision or truncate in the middle, posterior margin obtusely angulated, more or less truncate in the middle, sides somewhat concave; median keel slightly raised, often subobliterated, deeply cut by the transverse sulci, lateral keels absent; submarginal sulcus distinct on the lateral lobes and on the disc, first transverse sulcus only distinct on the disc, second and third both on the disc and on the lobes; transverse sulci deeply cutting the median keel, especially the third sulcus, which is placed distinctly behind the middle; lateral lobes about as long as high, lower margin ascendant from its middle to the anterior angle; anterior and posterior angle obtuse. Prosternal tubercle short, straight, conical, more or less pointed. Mesosternal lobes about as long as broad, their inner margins convex, their interspace but slightly longer than broad: metasternal lobes separated, especially in the female.

Elytra and wings fully developed or rudimentar, lateral. Hind femora short, rather thick, carinae sparsely and finely serrate. Hind tibiae slightly curved, not expanded apically, with 8 inner spines and 8 outer spines, without outer apical spine, inner spines somewhat longer than the outer ones. Hind tarsi short, not extending beyond the middle of hind tibia; third joint about as long as the two others together.

Supra-analplate of male triangular, apex acute, its surface rugosely punctured. Cerci long, conical, apex acute. Subgenitalplate short, conical, apex acutely truncate. Supra-analplate of female triangular, sulcate from the base to

the apex. Cerci short, conical, apex more or less acute. Valves of ovipositor with their margins subserrate or smooth, apex slightly curved, pointed. Subgenitalplate longer than broad, posterior margin triangularly projected in the middle.

Genotype: *Acridium Hagenbachii* DE HAAN.

Key to the species.

1. Elytra extending beyond the apex of hind femora. Apex of elytra rounded. **unicolor** BR. v. W.

1.1. Elytra shorter, not extending beyond the apex of hind femora. Apex of elytra more or less pointed.

2. Elytra reaching the apex of abdomen, sometimes extending beyond the apex, but always with the apex acute. Hind tibiae olive green or brownish . . . **sumatrana** nov. sp.

2.2. Elytra short, not reaching the apex of abdomen. Hind tibiae red. **nigra** nov. sp.

Bibracte unicolor BR. v. W.

1898. *Bibracte unicolor* BRUNNER VON WATTENWYL, Abh. Senckenb. Ges. XXIV. p. 241 n. 1., p. 243.

This species is unknown to me. BRUNNER V. WATTENWYL gives the following description: „Fusco testacea. Pronotum sulcis transversis nigris. Elytra abdomen superantia, sensim attenuata, apice rotundata. ♂. ♂

Long. corp.	26 mm.
» pron.	8 »
» elytr.	21 »
» fem. post.	17.5 »

From my friend Dr. R. EBNER I received the following informations. „Von *Bibracte unicolor* haben wir nur 1 ♂ (i. e. in Museum), das sich von Ihrem Exemplar (*sumatrana*) in folgenden Merkmalen unterscheidet: Elytren die Hinterknie deutlich überragend (um 3.5 mm), etwas dunkler (namentlich gegen die Spitze) und viel stärker zugespitzt. Flügel in der distalen Hälfte stark gebräunt. Hinterschenkel fast einfarbig hellbraun, nur ober dem Knielappen dunkler. Hintertibien ebenfalls hellbraun mit dunkleren Dornen; Hinter-

tarsen wie die Tibien. Nur die letzte Querfurche des Pronotums ist deutlich schwarz."

Only known from Sumatra.

Sumatra: Deli (mus. Vienna) 1 ♂, type.

***Bibracte sumatrana* nov. sp.**

General coloration dark olive-green or brown. Antennae olive-green, brownish or blackish apically. Head and pronotum uniform dark olive-green or brown or variegated with brown. Transverse sulci on the disc of pronotum of the same colour



FIG. 86

Bibracte sumatrana
nov. sp.

♂. Head and pronotum in profile.



Fig. 87.

Bibracte sumatrana nov. sp. ♂.

as the rest, at most somewhat darker, but not distinctly black or blackish. Sides of meso- and metathorax dark olive green or brown. Elytra and wings well developed, in the

male extending to the apex of abdomen or longer, but never surpassing the apex of hind femora, in the female not extending beyond the apex of abdomen. Anterior margin of elytra undulated, mediastinal and scapular area relatively broad; apex pointed, posterior margin straight, near the apex slightly incurved. Elytra brown or olivaceous brown, darker apically, anal area yellowish brown or reddish-brown.

Wings hyaline, infumated towards the apex and posterior margin. Anterior legs olive-green or brown. Hind femora dark olive-green or brown or paler olivaceous-green, knee yellowish-green, margins of the knee lobes blackish. Hind tibiae bluish olive-green, spines with black tips or totally black. Hind tarsi olive-green or brown. The undersurface of the body brown or yellowish-green. Fig. 86, 87.

	♂	♀
Length of body	22—26 mm.	35 mm.
» » pronotum	5.5— 7 »	10 »
» » elytra	14—21 »	18 »
» » hind femora	15—17 »	20 mm.

This species is only known from Sumatra.

Sumatra: 2 ♂♂ Anai kloof, 500 M. (E. JACOBSON) type, 1 ♀ Solok 1914, 1 ♀ Solok Padang 1912 (P. O. STOLZ) 1 ♂ Sumatra Exped. (coll. Mus. Leiden); 1 ♂ Siolak Daras, Korinchy Valley 3,100 ft. Mch. 1914, 1 ♂, 1 ♀ Sungei Kumbang, Korinchy 4,500 ft. Apl. 1914, 1 ♀ Barong Bharu, Korinchi, Main Range 4,000 ft. June 1914 (coll. Brit. Mus.). Type Museum Leiden.

***Bibracte nigra* nov. sp.**

General coloration blackish-brown. Transverse sulci on the pronotum blackish. Elytra short, not reaching the apex of abdomen, apex acuminate, blackish-brown, with a black stripe in the middle from the base to the apex, anal area paler coloured. Wings very short, more or less rudimentary, hyalinous, apex near the anterior margin infumated.

Hind femora blackish-brown, outer area with a black longitudinal stripe, knee blackish. Hind tibiae red, spines black. Fig. 88.

	♂	
Length of body	21 mm.	
» » pronotum	5.5 »	
» » elytra	11 »	
» » hind femur	15 »	



Fig. 88. *Bibracte nigra* nov. sp. ♂.

Only known from Sumatra.

Sumatra: Soban Ajam. VII 1916 1 ♂ (E. JACOBSON) type.
(coll. Mus. Leiden).

Eucoptacra.

1902. *Eucoptacra* BOLIVAR, Ann. Soc. Ent. France, LXX.
pp. 623, 625.

Size medium, body rather slender, rugosely punctate. Antennae filiform, long, reaching far behind the hind margin of pronotum. Face reclinate; frontal ridge projecting between the antennae, slightly but distinctly narrowing towards the median ocel, below the median ocel slightly constricted, especially in the female, subparallel towards the clypeus; the margins irregularly punctate, surface rugosely punctate. Eyes prominent sideways, narrowly separated on the vertex

Interocular distance about as broad as or something smaller than the frontal ridge.

Fastigium of vertex sloping, not separated from the frontal ridge by a transverse keel, forming a rounded angle with it; its general form hexagonal, its surface slightly impressed and finely rugose, lateral margins low and convergent behind. Occiput convex, in the female with a small median carinula in the anterior part between the eyes.

Lateral facial carinae nearly straight. Occiput finely rugose, cheeks rugosely punctate. Pronotum cylindrical, metazona slightly divergent posteriorly, anterior margin angulately rounded or rounded, posterior margin rectangular with the sides slightly concave, median keel distinct, cut by the sulci, lateral keels absent. First and second transverse sulcus indistinct on the disc and on the lobes, third transverse sulcus distinct on the disc, less distinct on the lobes, situated in or a little behind the middle of pronotum.

Lateral lobes about as high as long, lower margin ascendant from its middle to the anterior margin, slightly concave, anterior angle about 90° , rounded, posterior angle broadly rounded. Prosternal spine short, conical, sharply pointed. Mesosternal lobes about as long as broad, their inner margins rounded, their interspace broader than long, slightly widened posteriorly; metasternal lobes separated by a distinct interspace (female) or with the inner margins nearly meeting each other in the middle (male).

Elytra and wings well developed, apex of elytra rounded truncate, anterior and posterior margin subparallel. Hind femora with the upper and lower keel subserrate or nearly smooth. Hind tibiae slightly curved, not expanded apically, with 10 inner spines and 8 outer spines, without outer apical spine. Hind tarsi short, not reaching beyond the middle of hind tibiae, third joint as long as the two others together.

Supra-analplate of male triangular, apex obtuse, with a short median impression basally. Cerci straight, conical, apex subacute. Subgenitalplate short conical, apex subacute.

Supra-analplate of female long, triangular, apex obtuse, with a short median impression basally. Cerci short, conical, apex subacute. Valves of ovipositor with the margins sub-

serrate, apex curved up and pointed, lower valves obtusely dentate in the middle. Subgenital plate longer than broad, posterior margin obtusely angulated.

Genotype: *Acridium* (*Catantops*?) *praemorsum* STÅL.

Key to the species.

1. Hind tibiae red, reddish brown or olive green. Elytra extending beyond the apex of hind femora. Posterior part of lateral lobes of pronotum with a great yellow spot extending from the posterior angle to the humeral angle.

. **cingulatipes** BOL.

1.1. Hind tibiae dark olive green or bluish or blackish. Elytra not or scarcely extending beyond the apex of hind femora. Posterior part of lateral lobes of pronotum with a smaller yellow spot extending from the posterior angle to about the two-thirds of the posterior margin

. **splendens** nov. sp.

Eucoptacra cingulatipes BOL.

1898. *Coptacra cingulatipes* BOLIVAR, Ann. Mus. Genova, XXXIX, p. 99, n. 56.

1899? *Coptacra sumatrensis* FRITZE, Rev. Suisse Zool. VII, p. 339.

General coloration brown or reddish brown. Antennae brown, darker apically, the extreme tip yellowish-brown. Head brown. Pronotum brown, the posterior part of lateral lobes with a yellow or yellowish-brown spot, extending from the posterior angle to the humeral angle, broadly bordering the posterior margin. Elytra extending beyond the apex of hind-femora, brown with blackish-brown or darker, irregular spots, most in the basal half, less in the apical half. Wings bluish, infumated in front and apically and slightly along the posterior margin. Anterior legs reddish brown or

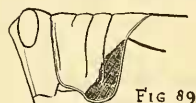


FIG. 89



FIG. 90

Fig. 89. *Eucoptacra cingulatipes* BOL. ♀. Head and pronotum in profile, with indication of the yellow spot on the lateral lobes of pronotum. — Fig. 90. *Eucoptacra splendens* nov. sp. ♀. Head and pronotum in profile, with indication of the yellow spot on the lateral lobes of pronotum.

brown. Hind femora with the outer area yellowish, the base and two oblique, transverse bands blackish, (sometimes incomplete) extending to the upper outer and inner areas; the outer lower area brown with a black stripe along the lower outer keel, the inner lower and inner area red or reddish; knee brown.

Hind tibiae red, reddish brown or olive-green, sometimes blackish from above, the extreme apex brown, spines with black tips. Hind tarsi brown. Sternum and abdomen yellowish-brown. Fig. 89.

	♂	♀
Length of body	15 mm.	23—25 mm.
» » pronotum	4 »	5—5.5 »
» » elytra	14 »	17—19 »
» » hind femora	10.5 »	12—13.5 »

This species is known from Sumatra, Borneo and Malacca.

Sumatra: Fort de Kock, Anai Kloof, Pula Pandjang, Tandjunggadang, Pulu Babi Simular, Padang Taarap (E. JACOBSON), Silago, Tandjong Morawa Serdang, Siboga, Deli, Medan.

***Eucoptacra splendens* nov. sp.**

General coloration dark olive-green or blackish-brown. Antennae black or blackish-brown, the extreme tip yellowish. Head dark olive-green or blackish-brown. Pronotum dark-olive green or blackish brown, the posterior part of lateral lobes with a bright yellow or yellowish-brown spot, extending from the posterior angle to about the two thirds of the posterior margin, never reaching the humeral angle, the upper margin of this spot being practically horizontal.

Elytra dark-brown, without spots, extending to the apex of abdomen. Wings pale bluish, strongly infumated apically. Anterior legs olive-green. Hind femora of about the same coloration as in *cingulatipes*, the outer lower area being oft totally red; knee black or blackish-brown.

Hind tibiae blackish-brown, sometimes dark olive-green, never red or reddish, spines black. Hind tarsi brown. Sternum and abdomen brown or blackish brown partielly. Fig. 90.

	♂	♀
Length of body	16 mm.	23 mm.
» » pronotum	4.5 »	6 »
» » elytra	12 »	16 »
» » hind femora	10.5 »	13 »

This species is only known from Sumatra.

Sumatra: Anai Kloof 1 ♂, 1 ♀, Gunung Singgalang 1 ♂, 2 ♀♀ (E. JACOBSON) Solok 1 ♂ (P. O. STOLZ) Type in Leidener Museum.

Traulia.

1873. *Traulia* STÅL, Rec. Orthopt. I, pp. 37, 58.

Size medium, body robust or rather slender, rugosely punctured. Antennae filiform, long, reaching behind the posterior margin of pronotum, in the male surpassing the base of hind femora, in the female reaching the base. Face reclinate; frontal ridge projecting considerably between the antennae, punctured, with the margins subparallel, below the median ocel slightly dilated towards the clypeus, the margins being there somewhat irregular; its surface below the antennae slightly impressed and more coarsely punctured.

Eyes strongly prominent sideways, almost hemispherical; interocular distance broader than the frontal ridge. Fastigium of vertex sloping, not separated from the frontal ridge by a transverse keel, forming with the frontal ridge a rounded angle; its general form elongate triangular, with the apex rounded, its margins showing a more or less distinct indication of temporal foveolae in the anterior part; these are visible from above.

Occiput convex; often with a fine median carinula. Lateral facial carinae distinct, slightly curved. Pronotum cylindrical, metazona slightly dilated or constricted; lateral keels absent, median keel more distinct especially in the metazona, cut by the transverse sulci; anterior margin rounded, often with a slight incision in the middle, posterior margin rounded or obtusely angulate; transverse sulci more or less distinct, second and third both on the disc and the lobes, third sulcus distinctly behind the middle. Lateral lobes longer

than high, the lower margin ascendant from its middle to the anterior margin, anterior angle rounded, posterior angle near 90° and rounded. Prosternal tubercle short, conical, straight, apex sharply pointed.

Mesosternal lobes broader than long or about as broad as long, their inner margins rounded, their interspace broader as long, widened posteriorly. Metasternal lobes separated by a distinct interspace. Elytra and wings fully developed, short or more or less rudimentar and lateral. Hind femora strong and relatively thick, with the upper carina dentate. Hind tibiae slightly curved, not expanded apically, with 8 inner spines and 7 outer spines, without outer apical spine. Hind tarsi reaching to the middle of hind tibia, third joint somewhat shorter than the two basal ones.

Supra-analplate of male more or less triangular, apex obtuse or subquadrate with the hind margin convex, with a median sulcus from the base to the apex or only basally. Cercus erected, compressed, near the apex dilated, apex more or less truncate or slightly excised. Subgenitalplate short, obtuse. Anal segments of abdomen slightly incrassate and curved upwards. Supra-analplate of female more or less quadrangular, with the sides and apex slightly rounded, and a median oval impression. Cerci short, conical, apex obtuse.

Valves of ovipositor with the margins smooth, apex slightly curved, upper valvae with apex obtuse, lower valvae with apex more acute.

Genotype: *Traulia flavoannulata* STÅL.

Key to the species.

1. Pronotum with a broad, black, median band on the disc, bordered with yellow or yellowish-brown. In the anterior part of the prozona and in the metazona this band is velvety. Elytra and wings well developed, reaching the apex of hind femora **azureipennis** SERV.

1.1. Pronotum without black median band or when present without these velvety parts. Elytra and wings not surpassing the apex of abdomen or rudimentar and lateral.

2. Elytra lateral, not touching each other on the back

and not surpassing the posterior margin of the second or third abdominal segment.

3. Hind femora with the outer area blackish, along the outer lower carina with a yellow or yellowish-brown stripe

. **flavo-annulata** STÅL.

3.3. Hind femora without yellow or yellowish-brown longitudinal stripes.

4. Hind tibiae blackish-brown with a yellow praegenicular ring **elegans** WILL.

4.4. Hind tibiae in the basal half brown or blackish-brown with a yellow praegenicular ring, the apical half red. . .

. (♀) **affinis** DE HAAN.

2.2. Elytra reaching beyond the middle of abdomen, touching each other on the back.

3. Outer upper carina of hind femora with a yellow, longitudinal stripe.

4. Hind femora with a bright red, complete praegenicular ring **superba** nov. sp.

4.4. Hind femora without complete praegenicular ring, only visible from the inner side and coloured with yellow

. **lineata** BR. V. W.

3.3. Outer upper carina of hind femora without yellow stripe.

4. Hind tibiae black or blackish brown.

5. Hind femora short, incrassate, red, upper area greenish.

. **Stali** BOL. C.

5.5. Hind femora longer and more slender, brownish-black.

. **stigmatica** BOL. I.

4.4. Hind tibiae red or reddish brown, at least in the apical half.

5. Hind tibiae in the basal half blackish brown with a yellow postbasal ring, the apical half red.

6. Hind femora bright red with an indication of a yellow praegenicular ring. ♂ unknown **rosea** WILL.

6.6. Hind femora brownish red from above and on the outer side; from below and on the innerside bright red; with a broad yellow praegenicular ring . . (♂) **affinis** DE HAAN.

5.5. Hind tibiae red, without or with an indication of a yellow post basal ring **Haani** WILL.

***Traulia azureipennis* SERVILE.**

1839. *Xiphicera azureipennis* SERVILE, Ins. Orth. p. 616 pl. 14, fig. 4.

1842. *Acridium (Oxya) dimidiatum* DE HAAN, (partim), Verhandel. Orth., p.p. 156, 157, 158, pl. 21 fig. 4, 4a, b.

1878. *Traulia azureipennis* STÅL, Bih. Svensk. Akad. Handl. V (4), p. 72.

1921. *Traulia azureipennis* WILLEMSE, Zoolog. Meded. Leiden, Deel VI, p. 30.

General coloration brown or blackish-brown. Antennae blackish-brown, the basal joints from the inner side and two or three apical joints yellowish. A transverse yellow band runs from the lower part of the front, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. Frontal ridge near the clypeus with a blackish quadrangular spot or small irregular spots, lateral facial carinae sometimes with a blackish spot in the middle. The upper part of the front yellowish or yellowish brown with irregular blackish spots. Vertex yellowish or yellowish brown, with a broad blackish median band, running from the apex of fastigium of vertex on to the disc of pronotum, terminating a little before the posterior margin of pronotum. This band is velvety on the fastigium of vertex and partially on the occiput and pronotum. Mouthparts blackish with yellow spots, the palpi yellow.

Pronotum yellowish-brown, with a broad median blackish band, running from the anterior margin to or terminating a little before the posterior margin. Between the anterior margin and the first sulcus and on the metazona this band is velvet black.

Upper part of lateral lobes brown with a black spot in the middle or black, lower part yellowish-brown or yellow. Epimera of pro-meso- and metathorax yellowish brown. Elytra and wings well developed, reaching the apex of hind femora. Elytra blackish-brown, anal area brown, along the anal vein with a yellowish stripe. Wings bluish, apex infumated.

Prosternal tubercle yellowish, the anterior side black. Sternum black with great yellowish-brown spots near the

anterior margin, in the middle and near the posterior margin of metathorax, somewhat variable. Abdomen black with

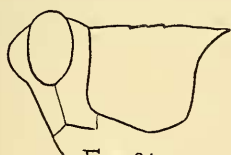


FIG 91



FIG. 92

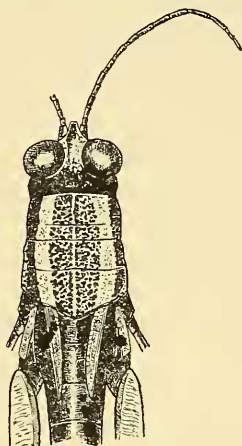


FIG. 94

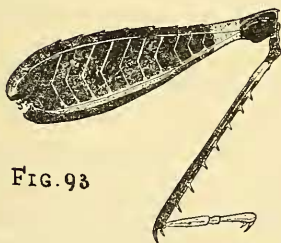


FIG. 93



FIG. 95

Fig. 91. *Traulia azureipennis* SERV. ♂. Head and pronotum in profile. — Fig. 92. *Traulia azureipennis* SERV. ♂. Pronotum from above. — Fig. 93. *Traulia flavo-annulata* STÅL. ♀. Hind leg. — Fig. 94. *Traulia elegans* WILL. ♂. Fig. 95. *Traulia affinis* DE HAAN. ♀. Hind tibia.

yellowish-brown stripes along the sides and from beneath.

Anterior and median legs yellowish brown on the anterior-, blackish-brown on the posterior side.

Hind femora blackish-brown, with a yellow praegenicular ring; the upper area brown with one or two basal yellowish-brown dots, outer area with an oblique yellow stripe basally, and a yellow spot on the outer lower and sometimes upper

carina; lower area with a yellow spot basally and a transverse yellow spot in the middle. Hind tibiae red, with a yellow post-basal ring included between the black base and a blackish brown ring; the extreme apex blackish; spines black or red with black tips. Hind tarsi brown. Fig. 91, 92.

	♂	♀
Length of body	20—23 mm.	28—37 mm.
» » pronotum	4.2—5 »	6—8 »
» » elytra	14.5—17.5 »	19—28 »
» » hind femora	11.5—13 »	16—20 »

This species occurs in Tenasserim, Malay Peninsula, Borneo, Java and Sumatra.

Sumatra: Indragiri, Ringgat, Kotatjane, Kutur, Toluk.

***Traulia flavo-annulata* STÅL.**

1860. *Acridium flavo-annulatum* STÅL, Freg. *Eugenies* resa. Orth. p. 329, n. 75.

1842. *Acridium (Oxya) dimidiatum* DE HAAN (partim), Verhandel. Orth. p. 158, pl. 21, fig. 5.

1873. *Traulia flavo-annulata* STÅL, Recens. Orth. I. p. 58, No. 1.

1921. *Traulia flavo-annulata* WILLEMSE, Zoolog. Meded. Deel VI, Leiden, p. 34.

General coloration blackish brown or brown. Antennae brown, darker apically, basal joint and apical joint yellowish. Head brown, lower part of frontal ridge, frontal ridge between the antennae and fastigium of vertex often with blackish brown spots. Lateral postocular fasciae blackish brown, from above bordered with yellow or yellowish brown. Cheeks yellow. Mouthparts blackish, palpi yellowish. Pronotum yellowish brown, disc of pronotum brown, on each side with a yellowish stripe, bordering the lateral postocular fasciae; this stripe in the prozona narrowed anteriorly, in the metazona subparallel. Lateral lobes of pronotum in the upper part blackish brown, the lower part yellowish or yellowish-brown.

Epimerum of pro-meso- and metathorax with a yellowish stripe. Elytra and wings rudimentar, lateral, scarcely reaching

beyond the posterior margin of the 2^e abdominal segment, blackish brown, area analis yellowish-brown. Prosternal tubercle yellow, apex blackish. Sternum black, with the anterior and posterior margin and 3 median spots yellow. Abdomen brown or yellowish brown, with a blackish brown band on each side. Anterior and median legs brown, posterior side blackish brown. Hind femora blackish brown with a yellow praegenicular ring, upper area brown; along the outer lower carina with a distinct yellow stripe in the middle. Hind tibiae blackish-brown, with a yellow post basal ring; spines blackish or dirty yellow with black tips. Hind tarsi blackish. Fig. 93.

	♂	♀
Length of body	19 mm.	24—28 mm.
» » pronotum	5 »	6.2 »
» » elytra	4.5 »	5—5.8 »
» » hind femora	11.5 »	14.5—15 »

This species is known from Amboina, Java, Mentawai Isl. and Sumatra.

Sumatra: Sumatra (coll. Museum Vienna).

Traulia elegans WILL.

1921. *Traulia elegans* WILLEMSE, Zool. Meded. Leiden. VI, p. 29, No. 15, p. 35, pl. 1. fig. 3.

General coloration blackish brown. Antennae blackish brown, the basal half often dark olive green, apical joints yellowish. Head blackish brown. A transverse yellow band runs from the lower part of the front, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. Frontal ridge near the clypeus with a blackish quadrangular spot. Margins of fastigium of vertex yellowish brown. Mouthparts black with yellow spots, palpi yellow. Pronotum yellowish brown, with a broad median brown band on the disc, running from the anterior to the posterior margin. Upper part of lateral lobes blackish brown, lower part yellow. Epimerum of pro-meso- and metathorax yellow or yellowish brown.

Elytra and wings rudimentar, lateral, scale-like, scarcely

reaching beyond the posterior margin of the 2^e abdominal segment; elytra blackish brown, anal area yellowish green, along the anal vein with a yellow stripe. Prosternal tubercle black, with a yellow spot on the posterior side. Sternum black with 3 yellow spots, the posterior margin bordered with yellow. Abdomen, blackish brown from above, except the four last segments who are more yellow, posterior margin of basal segments being bordered with yellow; sides of abdomen blackish; the undersurface yellowish with brown spots, anal segment blackish from below, yellowish from above, cerci yellowish. Anterior and median legs olive green on the anterior, blackish brown on the posterior side.

Hind femora blackish brown with yellow praegenicular ring, outer upper carina near the base with a small yellow stripe or spot. Hind tibiae blackish brown, with a yellow post-basal ring, spines with black tips. Hind tarsi yellowish brown or brown, with black spots from above. Fig. 94.

	♂	♀
Length of body	20 mm.	24 mm.
» » pronotum	5 »	6 »
» » elytra	4 »	5 »
» » hind femora	13 »	15 »

This species is only known from Sumatra.

Sumatra: Rawas V 1878 2 ♂♂, 1 ♀ (Mus. Leiden).

***Traulia affinis* DE HAAN.**

1842. *Acridium (Oxya) affine* DE HAAN, Verhandl. Orth. pp. 156, 158, No. 19, pl. 21, figs 9, 9a.

1921. *Traulia affinis* WILLEMSE, Zoolog. Meded. Leiden, vol. VI, p. 40.

General coloration blackish brown (or dark olive green?). Antennae brown, apical joints yellowish. Head blackish brown or brown. A transverse yellow band runs from the lower part of the front, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. Frontal ridge near the clypeus with a blackish irregular quadrangular spot. The upper part of the front and the vertex blackish brown or brown.

Lateral postocular fasciae blackish brown. Pronotum yellowish brown, with a broad median brown band in the middle, running from the anterior to the posterior margin. This band is margined on each side by a yellow stripe. Upper part of lateral lobes blackish brown, lower part yellow.

Epimera of pro-meso- and metathorax with a yellow stripe. Elytra and wings of the male nearly reaching the apex of abdomen, blackish brown with a black stripe in the middle, paler before the apex; a yellow stripe along the anal vein; area anal. yellowish green. In the female elytra and wings rudimentar, not reaching beyond the posterior margin of the 3^e abdominal segment, lateral, blackish brown with a yellow stripe along the anal vein; anal area yellowish brown. Prosternal tubercle yellow, the anterior side with a black stripe. Sternum blackish brown with two yellow or reddish yellow spots, posterior margin bordered with yellow or reddish yellow. Abdomen yellowish or reddish brown, on the sides with a black band. Anterior and median legs yellowish brown with dark spots, the posterior side mostly blackish.

Hind femora with the upper area brown and a yellow stripe along the upper outer carina in the basal half, outer area reddish-brown, lower and inner area bright red; a yellow and broad praegenicular ring, knee blackish brown. Hind tibiae red, with a yellow post-basal ring, included between the blackish brown base and a broad ring of the same colour; spines with black tips. Hind tarsi yellowish brown. Fig. 95.

	♂		♀	
Length of body	20	mm.	26	mm.
» » pronotum	5.5	»	6.5	»
» » elytra	10	»	6	»
» » hind femora	13.5	»	15	»

This species is only known from Sumatra.

Sumatra: Padang; Kutur (coll. Leiden); Barong Bharu, Korinchi; Siolak Daras, Korinchi Valley 3.100 ft. (coll. Mus. London).

***Traulia superba* nov. sp.**

General coloration blackish brown. Antennae blackish, apical joints yellowish. Head blackish. A transverse yellow

or reddish yellow stripe runs from the midst of the front, just below the median ocel, across the midst of the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. Fastigium of vertex black, its margins yellow, yellowish green or reddish yellow, this yellow stripe posteriorly bordering the upper margin of the eyes, running backwards over the occiput, continuing on each side of the disc of pronotum and terminating in the yellow stripe bordering the anal vein of elytra. Mouth-parts black or with some yellow spots, palpi yellow. Pronotum



Fig. 96. *Traulia superba* nov. sp. type.

with the disc black or blackish brown, on the sides with the above described yellow stripe; upper part of lateral lobes black, lower part yellow. Epimerum of prothorax black of meso- and metathorax with a yellow stripe.

Elytra and wings reaching beyond the middle of abdomen but not reaching the apex of abdomen. Elytra black or blackish brown, with a yellow or greenish yellow stripe along the anal vein.

Prosternal tubercle blackish basally, the apex greenish yellow or reddish.

Sternum black with 3 yellow spots, posterior margin bordered with yellow. Abdomen reddish or yellowish green, from above and on the sides with a black band. Anterior and median legs dark olive green.

Hind femora blackish brown, with a broad, bright red praegenicular ring, along the upper inner, upper, upper outer and lower outer carina with a yellowish or yellowish green stripe from the base to the praegenicular ring.

Hind tibiae blackish brown with a yellow post-basal ring,

between the inner and outer spines in the apical half with a red stripe; spines black.

Hind tarsi brown or blackish, first joint often with a yellow spot from above. Fig. 96.

	♂	♀
Length of body	19—21 mm.	28 mm.
» » pronotum	5—5.5 »	6.5 »
» » elytra	10 »	12 »
» » hind femora	12—13 »	15 »

This species is only known from Sumatra.

Sumatra: Anai-kloof (West-Sum.) 4 ♂♂, 1 ♀ (E. Jacobson). Type in Leiden Museum.

***Traulia lineata* BR. V. W.**

1898. *Traulia lineata* BRUNNER VON WATTENWYL, Abhandl. Senckenb. Ges. XXIV, pp. 248, 251, 252, n. 7.

1917. *Traulia lineata* BOLIVAR C, Revista d. l. Real. Acad. d. Cienc. Ex. Fisic y Natur. d. Madrid. Tomo XV, p. 634.

This species is unknown to me. BRUNNER gives the following description:

„Elytra in ♂ Segmentum abdominale quintum superantia. Femora postica superne testacea, haud annulata, latere externo nigro, nitido, carinae superiori et carinae inferiori linea flava apposita. Ceterum cum specie praecedente congruit” (Tr. flavo-annulata).

C. BOLIVAR who examined a specimen from the Mus. of Madrid, gives the following details (translated from Spanish). “Elytra touching each other in the middle and surpassing the 7^e abdominal segment ♂. Hind femora from above brown; praegenicular ring yellowish, only visible from the inner side; area externo-media black, shining; along the upper and lower outer carina with a narrow yellowish stripe”.

	♂
Length of body	18—19 mm.
» » pronotum	5 »
» » elytra	9.5 »
» » hind femora	12—13 »

This species is only known from Sumatra.

Sumatra: 1 ♂ Sumatra, type (Mus. Wien) Lubu-Sampir 19.I.85 (coll. Madrid).

***Traulia Stali* C. BOL.**

1917. *Traulia Stali* C. BOLIVAR, Revista d. l. Real. Acad. Cienc. Ex. Fis. y Nat. d. Madrid. T. XV, pp. 610, 634.

This species is unknown to me. C. BOLIVAR gives the following description.

„Colore obscure-olivaceo. Capite superne utrinque subindistincte flavo fasciato; vitta per carinas laterales pronoti et elytra usque ad apicem perducta; necnon fascia altera flava frontali per marginem inferiorem loborum pronoti usque ad mesopleuras perducta. Antennae modice elongatae, nigrescentes, apice flavae. Pronotum totum impresso-punctatum, subrugosum, dorso spatiis nigris destitutum; carina media subindistincta, tantum in metazona perspicua. Elytra abbreviata, segmentum quintum abdominale haud superantia, apicem versus angustata, apice acute-rotundata. Alae subcycloidea, basi coeruleo dilutissime inflatae, margine exteriori praecipue in angulo antico infumatae. Pedes quator antiqui in latere antico fusci, in latere postico nigri. Femora postica crassa, apicem abdominis attingentia, rufa, area supero-interna viridi excepta, ante geniculas late flavo-annulata. Tibiae posticae nigrae, basi flavo-annulatae. Abdomen flavum, superne lateribusque nigro taeniatum.”

	♀
Length of body	26 mm.
» » pronotum	5.8 »
» » elytra	11 »
» » hind femur	13 »

This species is only known from Sumatra.

Sumatra: 1 ♀ Sumatra (W. Morton) type coll. Mus. Madrid.

***Traulia stigmatica* I. BOL.**

1898. *Traulia stigmatica* I. BOL. Ann. Mus. Genova XXXIX, p. 100, n. 57.

General coloration blackish brown. Antennae dark olivaceous, brownish apically, apical joints yellowish. Head blackish brown or brown. A transverse yellow or reddish yellow band

runs from the lower part of the front, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. Frontal ridge near the clypeus with a blackish quadrangular spot, sometimes only faintly indicated. Fastigium of vertex yellowish brown, margins light brown, occiput brown. Lateral postocular fasciae black. Mouthparts blackish with yellowish brown spots, palpi yellow.

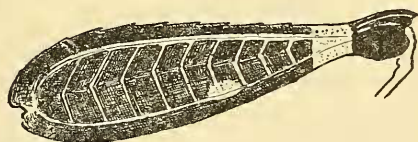


FIG. 97

Traulia stigmatica BOL. Hind femur.

Pronotum brown, disc on either side with a small yellowish stripe, sometimes indistinct. Upper part of lateral lobes black, the black band widened posteriorly, lower part yellow. Epimerum of pro-meso- and metathorax with yellow stripe. Elytra and wings abbreviated, reaching to or but little beyond the middle of abdomen, elytra blackish brown, anal area olivaceous or brown, along the anal vein with a small yellowish stripe.

Prosternal tubercle brown or black with yellow tip. Sternum brown with blackish stripes, or black with yellow or reddish brown spots, posterior margin bordered with yellow. Abdomen yellow or yellowish brown, with some dark spots on the fifth segment from above, on the sides with dark spots, except the last segments, from beneath brown or red. Anterior and median legs olivaceous green.

Hind femora reddish with a broad yellow praegenicular ring, the upper area brownish, in the middle of the lower outer carina with a (very constant) yellow spot, knee black. Hind tibiae blackish brown, between the spines in the apical half often greenish, with a yellow or yellowish green post-basal ring; spines with black tips. Hind tarsi brownish or black. Fig. 97.

	♂	♀
Length of body	18—19 mm.	28—29 mm.
» » pronotum	4.5—5 »	6—6.5 »
» » elytra	5—8 »	10—11 »
» » hind femora	10.5—11 »	14—15 »

This species is only known from Sumatra.

Sumatra: Fort de Kock, Padang Tarap, Gunung Singalang, Tandjunggadang (E. JACOBSON), Si Rambé.

***Traulia rosea* WILL.**

1921. *Traulia rosea* WILLEMSE. Zoolog. Meded. Leiden. Deel VI, p. 30, 38, Pl. I, fig. 5.

General coloration brownish or blackish brown. Antennae reddish brown, darker apically, apical joints yellowish. A transverse yellow band runs from the lower part of the front, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of mesothorax. Clypeus yellow, mouthparts blackish brown, palpi yellowish-brown. Lateral postocular fasciae blackish.

Pronotum brownish or blackish brown, disc on each side with a small yellowish or yellowish-brown stripe. Upper part of lateral lobes blackish, lower part yellow. Epimerum of pro-meso- and metathorax yellow or yellowish-brown. Elytra and wings abbreviated, reaching not beyond the apical third of abdomen.

Elytra blackish brown, with a black stripe in the middle, anal area yellowish-brown. Prosternal tubercle yellowish-brown. Sternum blackish brown, with a yellow spot in the middle of meso- and meta-sternum. Abdomen yellowish-brown, on the sides with a row of black spots diminishing gradually towards the apex of abdomen, on the last segments dissolved in many little spots. Anterior legs brown with a dark stripe on the femora. Median legs brown. Hind femora bright red, with a pale yellowish ring before the knee, knee black.

Hind tibiae reddish brown, bright red apically, with a yellow post-basal ring, included between the blackish base and a blackish brown ring. Spines red with black tips. Hind tarsi yellowish-brown.

	♀	
Length of body	23	mm.
» » pronotum	6	»
» » elytra	10.5	»
» » hind femora	13.5	»

This species is only known from Sumatra.

Sumatra: Sibolga VIII, 1913. 1 ♀ (E. JACOBSON). Type in Museum Leiden.

Traulia Haani WILL.

1921. *Traulia Haani* WILLEMSE. Zoolog. Meded. Leiden VI, p. 29, 37, Pl. 1, fig. 4.

General coloration brown or blackish brown. Antennae brown, apical joints yellowish. A transverse yellow band runs from the lower part of the front, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. Frontal ridge near the clypeus with the margins blackish. Lateral postocular fasciae black.

The upper part of the front black with yellow spots. Clypeus and mouthparts yellowish brown, with black margins. Palpi yellow. Pronotum brown. Upper part of lateral lobes black, lower part yellow. Epimerum of pro-meso and meta-thorax yellow. Elytra and wings abbreviated, reaching to the middle of abdomen. Elytra dark olive green, anterior area blackish brown; in the middle with a pale bordered, blackish stripe, from the base to the apex. Wings rudimentar.

Prosternal tubercle yellow. Abdomen reddish brown from above with a row of yellowish brown spots on each side; the sides with a row of black spots. Anterior legs brown.

Hind femora red, darker apically, on the inner area near the base bright red, knee black. Hind tibiae red, at the base darker. Spines red with black tips. Hind tarsi red.

	♀	
Length of body	26	mm.
» » pronotum	6.5	»
» » elytra	9	»
» » hind femora	15.5	»

This species is only known from Sumatra.

Sumatra: Palembang V—VI, 1878, 1 ♀ (Sumatra Expedition). Type museum Leiden.

Paratraulia.

1925. *Paratraulia* WILLEMSE, Treubia, vol. VI, p. 355.

Size medium, body slender, rugosely punctured. Antennae filiform, reaching to or reaching a little beyond the hind margin of pronotum.

Face reclinate; frontal ridge not projecting between the antennae, margins subparallel and somewhat irregular or slightly narrowed from clypeus towards fastigium of vertex, its surface like the whole front rugosely punctured.

Eyes strongly prominent sideways, oblique or almost round, interocular distance about twice as broad as the frontal ridge. Fastigium of vertex subhorizontal and slightly prominent, separated from the vertex by a transverse impression; forming with the frontal ridge an acutely rounded angle; its surface impressed, broader than long, with a short median carinula; its anterior margin more or less rounded. Occiput and vertex convex, without or with an indication of a median carinula. Lateral facial carinae slightly curved. Cheeks rugosely punctured along the lower margin. Pronotum cylindrical, rugosely punctured; anterior margin rounded, posterior margin obtusely rounded; median keel indistinct, only distinct in the metazona, lateral keels absent; first transverse sulcus only indicated on the disc, second and third both on the disc and on the lobes, third sulcus far behind the middle. Lateral lobes of pronotum about as long as high, lower margin ascendant from its middle to the anterior and posterior angle, anterior angle obtusely rounded, posterior angle more than 90° and rounded. Prosternal tubercle compressed, strongly transverse, slightly dilated apically, apex trilobate. Mesosternal lobes about as long as broad or broader as long, their inner margins convex, their interspace widened posteriorly, narrower than the lobes; metasternal lobes separated by a small interspace or subcontiguous. Elytra and wings developed, reaching the apex of hind femora or shorter. Wings sub-cycloid.

Abdomen nigrum, latere utrinque fasciis longitudinalibus duabus, ferrugineis ornatum ¹⁾).

	♀
Long. corp.	26 mm.
» pron.	6.5 »
» elytr.	16 »
» fem. post.	15 »

This species is only known from Sumatra.

Sumatra: Sumatra 1 ♀ type (coll. Mus. Vienna).

***Paratraulia elegantula* nov. sp.**

General coloration black or blackish brown. Antennae brown or reddish brown, darker apically, basal joint often olivaceous green, apical joints reddish brown or yellowish. Head olivaceous green, front with black, irregular spots. A yellow band runs from the inner margin of the eye downwards on the cheeks, across the cheeks backwards, along the lower part of lateral lobes of pronotum on to the epimerum of the mesothorax. The lower margin of the cheeks bordered with black.



Fig. 98. *Paratraulia elegantula*
nov. sp. ♀ type.

Lateral postocular fasciae black or blackish brown. Vertex green or olivaceous green, fastigium of vertex sometimes brownish, with a small yellow

stripe on each side, adjoining the lateral postocular fasciae

¹⁾ In 1925 I described the genus *Paratraulia*, having the opportunity to study the genotype, that I returned since long to the Museum. At the moment I am not quite sure that the specimens from Sumatra received from Dr. H. KARNY, are conspecific with *oblique-annulata*; where the female has the tibiae red. At the same time I wish to make the following correction. *Paratraulia bifasciata* WILL. = *Tauchira polychroa* STÅL. The outer apical spine of the hind tibiae is very small and difficult to see.

from above and continuing on the pronotum. Pronotum green or olivaceous green, disk on each side with a small yellow stripe. Upper part of lateral lobes blackish brown or black, lower part yellow.

Epimera of pro-meso- and metathorax yellow or yellowish brown. Elytra and wings short, in the male reaching the apex of abdomen or nearly so, in the female reaching a little beyond the middle of abdomen. Elytra blackish brown or black, anal area green, along the anal vein a yellow stripe, the apical margin yellowish. Wings bluish, apex infumated. Prosternal tubercle yellowish green or yellow, the base brown or blackish. Sternum yellowish green or yellow, the margins of the different parts blackish.

Abdomen blackish from above, yellowish from beneath, on the sides with one or two rows of yellow spots. Anterior and median legs greenish.

Hind femora on the upper and outer area yellow with two broad blackish brown oblique fasciae, that in the upper area are more reddish or reddish brown; the lower and inner area bright red; along the lower outer keel sometimes a black stripe, praegenicular ring yellow, knee red, with the arc. genic. sup. black. Hind tibiae bright red, with an incomplete postbasal yellow ring, the extreme apex blackish, spines red with black tips. Hind tarsi greenish. Fig. 98.

	♂	♀
Length of body	18 mm.	24 mm.
» » pronotum	4 »	5 »
» » elytra	10 »	11 »
» » hind femora	11 »	12.5 »

This species is only known from Sumatra.

Sumatra: Fort de Kock 2 ♂♂ 2 ♀♀, Tandjungadang 3 ♂♂ 5 ♀♀, Gunung Singgalang 1 ♂, 1 ♀ (E. JACOBSON). Type in Leiden Museum.

Catantops.

1853. *Catantops* SCHAUIM. Bericht Akad. Berlin, p. 779

Size medium or large, body rather stout, moderately rugose. Antennae filiform, in the male surpassing the posterior

margin of pronotum, in the female not reaching beyond this margin. Face reclinate; frontal ridge not projecting between the antennae, finely punctured, with the margins subparallel, below the median ocel slightly constricted, shallowly impressed at and below the ocellum, its surface near the ocellum smooth; above the ocellum subconvex.

Eyes strongly or moderately prominent sideways and upwards, interocular distance slightly smaller than the frontal ridge. Fastigium of vertex sloping, forming with the frontal ridge a rounded angle, its general form hexagonal, apex rounded or truncate, its margins between the eyes raised and approximated. Occiput without or with a fine median carinula. Lateral facial carinae distinct, slightly curved. Pronotum subparallel, metazona dilated posteriorly, median keel distinct, lateral keels absent; anterior margin rounded, posterior margin obtusely angulated or broadly rounded.

First transverse sulcus only indicated on the disc, second and third both on the disc and on the sides, cutting the median keel. Lateral lobes of pronotum as long as broad or somewhat longer than broad, near the anterior margin with or submarginal sulcus; the lower margin ascendant from its middle to the anterior margin, anterior angle obtusely rounded, posterior angle rounded.

Prosternal tubercle thick cylindrical, apex obtuse or slightly thickened, straight or slightly bent backwards. Mesosternal lobes broader than long, their inner margins rounded or angulately rounded, their interspace in the male widened posteriorly, broader than long, in the female small, the inner margins of lobes nearly touching each other in the middle; metasternal lobes contiguous.

Elytra and wings fully developed, reaching beyond the apex of hind femora, rarely abbreviated. Hind femora relatively strong, the upper keels finely dentate or serrate. Hind tibiae slightly curved, somewhat expanded apically, with 12 inner spines and 9 outer spines, without outer apical spine. Hind tarsi short, not reaching beyond the middle of hind tibia, third joint about as long as the two others together.

Supra-analplate of male triangular, apex obtuse or pointed,

margins straight or rounded, variable. Cercus variable, straight, cylindrical, conical, curved or bent in the apical third, apex obtuse or pointed or bilobate. Subgenitalplate short, apex obtuse or pointed. Supra-analplate of female triangular, apex more or less obtuse. Cerci short, straight, conical, apex obtuse. Valves of ovipositor with the margins smooth, or finely serrate, apex curved and pointed. Subgenitalplate longer than broad, posterior margin rounded, with a triangular median projection.

Genotype: *Catantops melanostictus* SCHAUM.

Key to the species.

1. Hind femora on the outer area with a dark longitudinal stripe. Subgenitalplate of male relatively long and pointed. Hind femora slender **splendens** THUNB.

1.1. Hind femora on the outer area without longitudinal stripes, but with complete or incomplete oblique dark bands. Hind femora shorter, more robust.

2. Outer area of hind femora with two oblique dark fasciae, running from the outer upper carina to the outer lower carina and expanded near the outer lower carina. Subgenitalplate of male short, obtuse **humilis** SERV.

2.2. Outer area of hind femora with two incomplete oblique dark fasciae, not reaching the outer lower carina. Subgenitalplate of male longer, more pointed
. **angustifrons** WALKER.

Catantops splendens THUNB.

1815. *Gryllus splendens* THUNBERG, Mém. Acad. Pétersb. V, p. 236.

1842. *Acridium (Oxya) infuscatum* DE HAAN, Verhand. Orth. pp. 155, 156, n°. 13.

1859. *Acrydium rufitibia* WALKER, Ann. Nat. Hist. (3), IV, p. 223.

1870. *Cyrtacanthacris nana* WALKER, Cat. Derm. Salt. B. M. III, p. 568, n°. 37.

1870. *Cyrtacanthacris ferrina* WALKER, Ibid., p. 568, n°. 38.

1870. *Acridium ceramicum* WALKER, Ibid., p. 591, n°. 52.

1870. *Cyrtacanthacris tenella* WALKER, Ibid., IV, p. 618.

1870. *Acridium coreanum*? WALKER, Ibid., p. 629. The type is missing the hind legs.

1870. *Cyrtacanthacris obliqua* WALKER, Ibid., V, Suppl. p. 58.

General coloration brown or brownish testaceous. Antennae brown, darker apically. Head brown face and cheeks

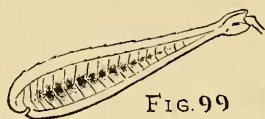


FIG. 99

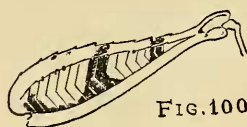


FIG. 100



FIG. 101

Fig. 99. *Catantops splendens* THUNB. ♀. Hind femora. —

Fig. 100. *Catantops humilis* SERV. ♀. Hind femora. —

Fig. 101. *Catantops angustifrons* WALKER. ♂. Hind femora.

more yellowish, with irregular dark spots or fine stripes on the vertex or cheeks. Pronotum brown often along the median keel or on the disc or metazona with dark stripes or reddish spots; the upper part of lateral lobes mostly darker than the lower part. Elytra long, reaching far behind the apex of hind femora, subhyaline, brownish testaceous variegated with dark dots, especially in the apical half, anal area, more yellowish brown, unicolorous or variegated with dark dots. Wings yellowish hyaline, sometimes slightly infumated at the apex. Sternum and abdomen brown or yellow. Episternum of metathorax with a yellowish stripe.

Hind femora with the upper and outer area yellowish-brown, generally with a more or less broad blackish longitudinal stripe on the outer area, complete or incomplete; the inner area red or reddish, with a black stripe along the inner upper carina and a blackish dot on the upper area. Knee brown or blackish brown.

Hind tibiae red, or yellowish red, spines red with black tips. Hind tarsi reddish brown.

Cerci of male slender, incurved, apex more or less pointed.

Subgenitalplate relatively long and pointed. Fig. 99.

	♂	♀
Length of body	28 mm.	37-44 mm.
» » pronotum	6 »	8-8.5 »
» » elytra	28 »	36-37 »
» » hind femora	15 »	20-21 »

This species has a very wide range and occurs as well in India as in Celebes, Philippines, Amboina, Ceram and China.

Sumatra: Lubuksikaping, Tandjungadang, Aur Kumanis (E. Jacobson), Surul, Tandjong Morawa Serdang, Atjeh, Silano Medan, Alur Djambu (on leaf of the cacao tree), Arnhemia.

Catantops humilis SERV.

1839. *Acridium humile* SERVILLE. Ins. Orth. p. 662, no. 22.

1870. *Caloptenus dominans* WALKER. Cat. Derm. Salt. B. M. IV, p. 705, no. 58.

1870. *Caloptenus signatipes* WALKER. Ibid p. 706, no. 60.

1870. *Caloptenus stricta* WALKER. Ibid p. 707, no. 63.

1871. *Cyrtacanthacris punctipennis?* WALKER. Ibid V Suppl., p. 60. The type is missing the hind legs.

General coloration dull brown or greenish brown. Antennae brown, darker apically. Head brown or yellowish brown with dark spots or points, sometimes more or less regular along the margins of the frontal ridge. Vertex brown or blackish brown, unicolorous or with a yellow stripe on each side beginning at the fastigium and continuing on the pronotum.

Pronotum yellowish brown or brown, lateral lobes with some dark spots, unicolorous or on the disc with an irregular undulated yellow stripe on each side, especially in the male, running from the anterior to the posterior margin, being the continuation of the yellow stripe on the vertex. Epimera of pro-meso- and metathorax often yellow.

Elytra and wings reaching a little beyond the apex of hind femora. Elytra brown or greenish brown, sparsely tessellate with darker spots. Wings hyalinous or only slightly infumated. Sternum and abdomen brown.

Hind femora yellow or yellowish brown from above and on the outer area, lower and inner area red or reddish or

yellowish brown. Outer area with two broad blackish brown or brown oblique bands, extending from the outer lower carina upwards, across the outer area, upper area to the middle of the inner area or nearly so. These bands are sometimes faintly indicated or absent on the upper area, but always very distinct on the outer area. The first band is distinctly widened near the outer lower carina; outer lower carina in the basal half and at the base and sometimes in the middle with a blackish stripe. Knee brown, with a blackish spot on each side, just behind the more or less indicated yellowish praegenicular ring.

Hind tibiae red with a faint indication of a yellow post-basal ring, spines red with black tips. Hind tarsi red or brownish. Cerci of male slender, slightly incurved, apex pointed. Subgenitalplate of male short, apex obtuse. Fig. 100.

	♂	♀
Length of body	19—25 mm.	28—33 mm.
» » pronotum	4—5 »	6—7.5 »
» » elytra	15—22 »	23—31 »
» » hind femora	11—13 »	15—19 »

This widely distributed and common species ranging from India, Yunnan, Malacca, China to Borneo, Java and Sumatra.

Sumatra: Anai kloof, Fort de Kock, Baso, Lubuksikaping, Tandjunggadang, Padang-Aarap, Aur Kumanis (E. JACOBSON), Solok, Tandjong Morawa Serdang, Silago, Lubu Banku, Siboga, Deli, Taluk, Medan, Pagar Marbau, Bulu Tjina, Alur Djambu, Sibolangit, Kotatjane, Perdagangan.

***Catantops angustifrons* WALKER.**

1870. *Acridium angustifrons* WALKER. Cat. Derm. Salt. B. M. III, p. 593, no. 57.

1870. *Cyrtacanthacris nanula* WALKER. Ibid IV, p. 616.

1870. *Acridium obtusum* WALKER. Ibid IV, p. 634.

1898. *Catantops intermedius* BOLIVAR. Ann. Mus. Genova, XXXIX, p. 100, no. 58.

General coloration brown or brownish testaceous. Antennae brown, slightly darker apically. Head brown, with irregular dark spots or stripes. Pronotum brown, the upper part of

lateral lobes often darker than the lower part. Elytra long, reaching far behind the apex of hind femora, subhyaline, brownish testaceous with a row of dark spots along the radial vein; variegated with blackish brown spots especially in the apical half, anal area more uniform brownish. Wings hyalinous, apex slightly infumated.

Sternum and abdomen yellowish brown. Hind femora brown or yellowish brown, outer area with two brown or reddish brown dots, extending from the outer upper carina to the middle of the area, the apical dot mostly extending to the outer lower carina; along the carinae with small blackish stips; inner area brown or reddish brown with four black dots, one at the base, two in the middle and one before the knee. Hind tibiae red or reddish, spines red with black tips. Hind tarsi brown testaceous.

Cerci of male slender, incurved, apex pointed. Subgenital-plate of medium length, apex pointed. Fig. 101.

	♂	♀
Length of body	28 mm.	35—38 mm.
» » pronotum	5.8 »	7.2—8 »
» » elytra	23 »	32—35 »
» » hind femur	15 »	19—21 »

This species is ranging from Australia and New Guinea to Lombok, Java and Sumatra.

Sumatra: Padang 1 ♀ (coll. DE HAAN), Alur Djambu (Atjeh), on leaf of cacaotrees.

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On p. 123 after line 4 is to be added:

1925. *Oxya universalis* WILLEMSE, Tijds. v. Entom., Deel LXVIII, p. 11, 21.
